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Fundamentals of Service Planning for Architects

An Analysis of Promotion Factors Determining Economical and Efficient Building Management

By Jas. M. Green, Jr.

DISTINGUISHED by a background of historical sentiment and action; influenced by the traditions of art, literature, and intellectual achievement of æons of time; possessing architectural monuments created by the minds of able predecessors whose inherent refinement would not be suppressed by crude conditions, and endowed with the aptitude to analyze their works, the modern American architect comes into an honorable heritage, measured only by the progress of civilization.

Commercial architecture is fundamentally builded upon fact; the ability to see things as they are, to indulge in individual experiences with the power to think about them to some purpose, the faculty of translating all action into terms of logical conclusion. Pressed by the complexes of intriguing economics, alternately hampered and helped by municipal, State, and Federal legislation, prodded by the burdens of taxation and encouraged again by agreeable money powers, obsessed by ethics, and floundering in a maelstrom of mob-psychology, the architect of to-day unceasingly fights for his just reward of recognition as a business mentor dealing in facts and not abstract artistic theories.

Among the thousand and one phases of human activity about which the architect must understand some primal truths, there loom particular branches of endeavor which are too intricate for any but the specialist to master. Such is building management.

The aspect of the building manager's status is purely professional in that he does not sell a tangible commodity but a service admixed with the use of space. Success to him comes through an understanding of the psychical forces which function to create human satisfaction. Depending upon the architect during the period of promotion, the relationship becomes interdependent, for the building manager himself divulges specialized knowledge to the architect which is vitally of import in the preliminary analysis of a structural venture. It is this interchange of ideas and experiences about the myriad details of construction and active service which intelligently determines stability of commercial investment in a building, capable of meeting efficiently all the exigencies demanded by tenantry.

What is a building's service? First you must answer what kind of building is to be erected. Excepting those buildings constructed to serve religious, penal and administrative purposes, the motive behind promotion is anticipated yield upon the investment. Type, alone, determines the nature of the service to be rendered.

Churches are built to answer an emotional appeal and inspire spiritual reaction. Apartments attract permanent home-seekers, while hotels complicate the living problem because of the transitory nature of their tenancy. Both, however, demand a high degree of comfort, convenience and economy. Industries, warehouses, power generation, and distribution units call for strictly commercial layouts for profitable production processes; pitting architectural embellishment against the value and prestige of advertising. Loft and office buildings define the quality and quantity of their services in terms of individual structures and district requirements. Hence, we may conclude that the various degrees of service are usually determined by the location of the structure, demand and competitive considerations.

It is a normal situation that one of the most important phases of modern architectonic expression is in the perfection of a structure type whose function is commercial; the investment of capital outlay for specific profit yield. In high buildings the investment feature is developed to the nicest degree, and this development is as readily explained as the periodical architectural transitions controlled by the immutable laws of territorial changes and influences.

A nation of business people, we Americans seek elbow touch with one another. Untrammelled by social restrictions, totems, and taboos; fearing no aberrance of predated dictum and free to express progress in any terms, constructive genius vitalized human contact by the invention of high-speed elevators and steel-skeleton structures. Thus each individual became a unit in concentrated commercial centres where the natural desire is appeased to conduct business with the greatest convenience, and within the smallest possible area. Seeking desired facilities with the least physical exertion, women do their shopping; so department stores answered their demand, grouping themselves along with their adjacent and supplementary specialty shops. Men, in wishing to conserve time, desire to be near banks, courts, municipal offices, and in proximity to particular districts and varied professional services. In the development of the skyscraper the crying need for the efficient conduct of business affairs was answered.

But along with structural development the type opened up new problems of finance and administration, and although aggrandized by the architect and the engineer, it is to them still intriguing and bewildering. From a chaotic beginning the building manager steps forth as a prime factor to render a co-operative service to the architect and stabilize economic structural investigation.

The three fundamental elements determining the efficiency and economy of a building's service are:

1. Investment.
2. Design.
3. Management.

Investment logically determines all the basic service functions. The control of these functions is distributed between the owner, the building manager, and the architect. The owner and the manager normally set up a skeleton of economic limitations, locate the structure, and specify what they need and intend to purchase for their own service, or in respect to the prospects of a turnover. Collaboration with the architect is essential. It is obvious that neither of the three dominates investment possibilities, hence it is important that the responsibilities of each be technically differentiated and co-ordinated for investment security.

Design is the natural translation of requirements into terms of structure. Trained in the psychology of planning; clever with schemes of infinite variety; cautious because of investment limitations; protecting the financial interests of his clients as well as his own reputation, in matters of preliminary estimates, actual costs of construction, and economy of future operation, the architect renders a service upon which the success or failure of the venture depends.

Management is accurately prescribed by the character of the design but the duties of the building manager are full of opportunities. The personality behind the service he sells; his tactful interpretative attentions; his ability as purchasing-agent, organizer and controller of labor, as well as his capacity for insight into profit possibilities, are of equal importance in the administration of successful operation.

For clarity of consideration the work of the building manager may thus be analyzed:

Tentative Status: *Creative Advisor.*
Administration:
1. Investment: Statistical.
    Rental determinations.
    Collections.
    Accounting.

2. Operation: Services.
    Purchases.
    Maintenance.

3. Tenantry: Renting space.
    Leases.
    Policies.

PRELIMINARY CONSIDERATIONS

Promoters with elaborate plans and generous estimates of cost and profits to be made in building ventures have seen the time when economic enlightenment challenges them to prove their figures. In many cases these promotions have been to the distinct advantage of the community but, with the understanding come to owners, manager, and architect, extensions and renewals of depreciated properties as well as new construction will progress with the measured certainty of intelligent investigation.

Generally, after the method of financing is fixed, a specific structural proposition is analyzed and studied for development. Rather than depend upon the owner, the building manager and the architect, it is far wiser to seek the advice of local and national associations of building owners and managers. It has been proven and reproven that substantial, sometimes enormous savings have been effected by travel and observation, particularly by the investigation of existing projects in other cities. Every estimate of cost relative to utility and service should be checked against known figures and conditions, for discriminate surveys are necessary to avoid perfunctory estimates and imminent financial encumbrance.

Vacant Space, without doubt, regulates profit and loss. It is generally estimated that over a period of years loss on this account will not exceed ten per cent. But the question is: *for how much space does there now exist an actual demand, and will it be potentially active in this district?* It is manifest that conservative investment is not haphazard and that for intelligent structural investment one must study the chances incident to district shifting which is caused by failure to retard deterioration and the forced settlement of new centres by promoters.

A few years ago the scheme was evolved by the National Association of Building Managers and Owners, whereby a reasonable estimate could be made of the demand for space. This research was executed by establishing a definite relationship between population and its percentum of increase, by analyzing the trend of business through bank clearings and comparing this data with the current usage and existence of floor space. In the manner that public utilities check up monthly on consumption, as manufacturers and merchants investigate their markets, so might a systematic survey be made to determine the marketability of rentable area. By a comparative process figures can be tabulated relative to these items and a per capita demand established. By studying the ratio of increases it is possible to arrive at a fair conclusion regarding future possibilities. The main point proven by such surveys shows that occupied area rises about parallel to the population increase and bank clearings growth, that is, of course, with conditions being normal, for floods, pestilence, and prosperity manifest themselves in depressions and excesses.

While embracing the entire field of structural creation the architect and the building manager can profitably discuss at the outset these items:

Plot considerations.
Land investment per square foot utilized.
General plan arrangement:
    "E" shape.
    "I" shape.
    "L" shape.
    "O" shape.
    "T" shape.
    "U" shape.
    "X" shape.
    Their combinations and exaggerations.
Building area: Gross and rentable.
Percentum building area to lot area.
Cubic or square foot cost.
Operation.
Number of rentable stories.
Space:
    Street Space: That is, space fronting on any street except in case of exterior courts where depth is greater than the width.
    Alley Space: That is, space facing on alley except in case of exterior court where the same treatment is carried out for street space on exterior court.
    Secondary Space: That is, space adjacent to interior corners of the court.
    Dark Space: That is, space against a party wall.
Banking and control of elevators.
Office Units:
    Sizes and service.
    Light: Orientation.
        Quality.
        Quantity.
    Column spacings.
    Corridors:
        Width.
        Lighting.
Loading-platform locations.
Receiving-room.
Janitor's offices.
Cleaning service.
Penthouse utilization.
Workshops.

- Entrances and types.
- Materials for:
    - Walls and partitions, interior and exterior.
    - Floors.
    - Ceilings.
    - Stairways.
    - Toilet-rooms and wainscoting.
    - Lobbies and corridors.
- Windows and doors.
- Electric wiring:
    - Location of outlets.
    - Types of lamps.
- Drinking-fountains.
- Fire-protection appliances.
- Special services with respect to return.
- Rental problems.
- Advertising.
- Mechanical equipment.

Steam-Engines, Electric Generators, Recording Devices, Pumps, and Auxiliary Equipment

There are multivaried types of mechanical and electrical apparatus used in building equipment, and so varied are the operation and services that the architect and building manager should rely upon the advice of competent sanitary, mechanical and electrical engineers. Only by analytical study of specific problems from the standpoints of initial costs, continuous and intermittent operation, reserves, maintenance, depreciation, and overhead, can the most advisable selection be made.

When engineers perfect combustion or minimize smoke to a point of unimportance, then will the greatest service have been rendered architecture. Then and only then can architects design in color and material knowing that their artistic creation will remain unsullied by the grime of commerce and industry

Power Plant:

- Comparison of isolated plant with public utility rates:
    - Investment.
    - Operation.
    - Income.
- Space Requirements:
    - Avoidance of fixed annual charges by costly excavation.
    - Estimated rentals of plant space used.
- Fuel:
    - *Consumption:* Length of the heating season. The longer the period of consumption the greater the opportunity for isolated plant.
    - *Selection:* Comparisons with coal and fuel oil with regard to:
        - Initial installation.
        - Advisability of preparedness for fuel oil consumption.
        - Market prices.
        - Cost of handling coal.
        - Tank or bunker storage.
    - *Feed:* Hand or automatic stokers.

Heat Distribution:

- System type:
    - Pipe sizes.
    - Effectiveness.
    - Quietness.
    - Operating economy.
- Thermostatic control:
    - Central.
    - Local.
- Radiators:
    - Types.
    - Grilles.
    - Baffles.
    - Locations.

Water-tower, Miami, Fla.

Water-Supply Equipment:

- Supply: Location and pressure of local mains.
- Control, distribution, materials, valves, and faucets.
- Storage: Gravity and pumps.
- Fire: Reserve and automatic pump.
- Drinking: Filtration and refrigeration.
- Sprinkler system.
- High-pressure steam:
    - Hot-water.
    - Cooking.
    - Sterilizing.
    - Method.
    - Reserve.
- Low-pressure steam:
    - Heating.
    - Fire-extinguishing.

Plumbing:

- Riser lines.
- Drainage.
- Ventilation.
- Fixtures:
    - Distribution.
    - Service capacity.
    - Operation economy.
- Roughings for future installations.

Electric Service:

- Available current:
    - Cycles.
    - Phases.
    - Voltage.
- Transformer vaults.
- Current consumption.
- Outlets:
    - Types.
    - Locations.
    - Control.
    - Requirements of: Illuminating.
        - Equipment.
            - Panels.
            - Wiring systems.
            - Telephones and telegraph.
            - Fire-alarms.
            - Clock service.
            - Time stamps.
            - Call-bell systems.
            - Electric towels.
            - Electric scrubbing.
            - Lighters.

Elevators:

- Car types:
    - Safety.
    - Speed.
    - Passenger and freight.
    - Capacity.
    - Finish.
- Power: Hydraulic and electric.
- Signals.
- Mechanical dials.
- Target-board.
- Telephone.
- Call-back systems.
- Door types.

Ventilation:

- Natural.
- Mechanical:
    - Intake and discharge.
    - Standards of efficiency.
    - Movement of air.
    - Health.
    - Avoidance of odors.

Vacuum-Cleaning Systems.

Sprinkler Systems.

Filtration.

Refrigeration.

Special Equipment:

- Pressed air.
- Incinerator.
- Professional considerations.
- Variable current.

(*To be continued*)

Stretching the Centimes

The Student-Traveller in Europe—Ways of Saving Money and Bother—Daily Expense

By Gerald K. Geerlings

Abroad on the Woodman Travelling Scholarship, 1924-25

Illustrations, including the frontispiece, by the Author

SUCH is the curse of architecture!

Business booming and you can't heave-ho for Europe—too many "full-sizes" and "prospects."

Business dull—can't take a chance on going abroad while nothing "comes in."

But—as a profession of optimists there are those happy fortunates who are probably contemplating setting off for a vagabonding trip abroad. If they are, the following suggestions are humbly offered to make the centimes and pesetas drag out a fleeting existence. Those of the Travelled Initiate are requested to read no further, for doubtless they have discovered a better way to prolong the life of a shoestring, and a more certain scheme for outwitting officials, than is hereinafter described.

To begin with a word of explanation.

The remarks that follow are based on a year's experience, beginning September, 1924, by my wife and myself. We are ordinary mortals, a bit poorer than the average, but deriving a completely good time out of life. We lived in as civilized a manner as the circumstances admitted, demanded only such comforts of life as the various communities afforded, tried to keep our expensive nationality a secret, and accepted things as they were. We did not expect to live at a Ritz in every hamlet. We did not shout our demands in infuriated English at a Portuguese peasant. We had to economize and we possessed no false pride in trying to hide the fact. We frankly admitted that only rarely we travelled first and second class, except in Spain and Greece. We generally went "third," without looking furtively about to be sure no one saw us. By so doing we undoubtedly saw more natives and costumes than if we had paid higher rates to ride with fellow Americans. We also had great sport doing character studies and caricatures.

We got ourselves inoculated for typhoid and vaccinated for smallpox before sailing. That was for peace of mind. It is not a bad precaution before starting anyway. Another regarding passports—under the reason for going write: "Study and travel." That extricates you from embarrassing questions at a forlorn Spanish border town, where you are asked in every language except our native slang, what you mean by having a ball of twine and an extra toothbrush. "A smuggling salesman—that's what you are!" etc., with no end of trouble. If you carry a camera (as you should), hang on to the receipt. Customs officials in Greece irritated us beyond measure. Also, Uncle Sam on your return may bring the accusation of smuggling in a foreign camera.

More about passports. If you are fortunate enough to go abroad with a wife, be photographed on the same photo to avoid insistent questioning as to whether or not you are you, and she is your wife, etc. Also, arm yourself with about ten duplicate prints. For example, in Spain you will need one on a mileage-book, in Italy for a "tessara" (governmental permission for free entrance to all "monuments"), and all sorts of indefinable silly requirements which seem utterly ridiculous. (We combated that by having a very ridiculous photograph.) If you are buying visés by the wholesale it is probably wiser to get only the one for the country to which you are sailing, and buy the remainder over there. At your last town in a country before hopping across a border you can usually get a bargain. In New York all visés are (or were) generally $10 apiece. Yet in Rome I paid only $4.90 for the Greek visé; 60 cents in Athens for the Turkish stamps and hieroglyphics; 50 cents in Prague for the transit visé through Germany. On three visés that meant a saving of $24. Moreover, Congress is considering repealing the foreigners' head-tax of $10, and thus all visés may be wiped out after you had paid the precious fees before sailing.

Since each of the two common methods of carrying money, by travellers' checks and by letter of credit, seemed to possess certain features superior to the other, we took both. Checks are often easier to cash, yet on leaving a country, or at a small place where the rate of exchange is poor, it is a disadvantage to be compelled to cash an entire check, of say $20, in a currency for which you have only a $1 use. True, it can be changed back, but at a loss to you. Checks usually cost ¾ of one per cent, while a letter of credit is ⅓ less, viz., ½ of one per cent. Any amount can be cashed on a letter of credit. In selecting your bank for the letter of credit it is advisable to choose some prominent New York firm with corresponding banks everywhere. A friend of ours had his letter on an obscure Southern bank, which not only had but few correspondents but charged him double the New York rate!

The bank favored with your letter of credit will forward mail wherever instructed to send it. In order to be fairly certain of receiving all mail, it is to your interest to have letters forwarded at each important stopping-place, in care of the bank with whom you are going to deal. For example: suppose your letter of credit is on the Equitable Trust Company of New York. Your forwarding address for the entire trip becomes "E. T. Co., 23 Rue de la Paix, Paris." That is all your friends have to remember all the while you are away. Assuming you are in Nice, France, going to Rome. About five days before you intend leaving Nice, look up "Rome" in your list of corresponding banks and decide on some pretty-sounding name. Write the Paris office, instructing them that "no more mail be sent to Nice, but until further notice all letters be forwarded to .... Bank, Rome." The result is that no mail reaches Nice after you have gone, and also, that mail is awaiting your arrival at Rome. It is worth while to know sufficient about what your future plans will be, in order to keep your bank headquarters informed so that mail is forwarded by them—and only once. Make up your mind that it is poor policy to have mail forwarded in care of a hotel. The management will not only be very apt to mislay a part of it before you arrive, but will be certain to fail to forward any after you leave. Another important consideration is that if you are dissatisfied with your hotel and desire to change to another, it is not only embarrassing to leave them a forwarding address of a rival hotel, but it is useless to expect them to take any interest in mail ever reaching you. We talked with only a rare individual once in a while who was satisfied with the mail service of two of the usual travel agencies. We became convinced from many complaints we heard that it is advisable to let a first-class bank take charge of mail. As far as we know our bank rendered faultless service the entire year. When you are out of funds you will realize as never before the life-and-death issue of receiving mail on time, and safely. Don't assume that mail will take care of itself.

Apropos to mail—instruct all your friends, relatives, enemies, and arch-enemies to send you no presents in packages at any time. Send out a circular letter couched in pleading terms overflowing with tears. We had Christmas gifts arriving as late as April, with no end of customs bills, special taxes, and postage fines. We paid for every article three times over. If some one insists on sending you a check, request them (if you can) to send it to your account to be credited toward increasing your letter of credit, if it be a large sum, and an American Express (or similar) check, if a small amount. Avoid getting government money orders, because they take weeks and weeks to cash and are at too low a rate of exchange. We got one in Paris for $5 or 89 francs, whereas $5 at that time was worth 110 francs.

A word more about money. In Madrid, for instance, we found the rate of exchange at two first-class banks, standing side by side, varied 5 per cent in what they would award us on our letter of credit. Remember that over there banks and post-offices bargain as well as antique-dealers. At Amalfi the banker of a reputable house started in by offering me 23.50 lire to the dollar, but was finally induced to give me 24 even. When you are cashing money in large amounts, for the sake of your future, do "shop around." Try to get enough to tide you over the little towns, and cash only in the large cities. Watch the currency fluctuations—and guess the right time in buying money. Incidentally, you do well to carry it divided on your person, in pockets with protecting buttoned flaps.

If money is really important to you, never talk any English whatsoever to any native with whom you are going to have commercial dealings. Brush up on your French and never know a word of English. For your home give the Paris forwarding address. In filling out the hotel forms that require your place of birth, write the most foreign-looking name your home town can be called, in penmanship that the "padrone" cannot read. American identity will double prices for you. French seems to be understood by at least one waiter in every hotel on the Continent. If you can handle German it helps in Sicily, Greece, and Turkey. It is native, of course, to Austria. In Czechoslovakia it is the despised tongue, but widely understood nevertheless. In Holland it is an even toss-up between German and English; but they are an honest lot, and it is safe to speak the latter. Prices are high there anyhow. Italian is invaluable (not there, however), of course, but quite a brainful to tackle for a short trip. But by all means brush up on French!

In keeping down expenses begin with the lack of visés bought over here. Add to that the French research. Even though you decide you can't sputter a foreign tongue, by all means at least learn to count like a native. When you bargain the vender will quote a price, and if you do not understand but gesture him to write it down, he is astute enough to double the amount he told you verbally. The next step is to rid yourself of the Anglo-Saxon primness in aversion to bartering. If you do not do so you will not only deprive the merchant of his habitual pleasure and thus disappoint him, but his respect for you will ebb rapidly. Offer a fourth of the first price named, and grudgingly advance by degrees to one-half as a last resort. But no more!

At a pension in Amalfi we were told that the "terms complete were 40 lire each for room number 38." "Too much!" we retorted, adamant. "Very well, we have a cheaper room for 35 lire each. Here, Pietro! Take the bags to room eight and thirty."

At Milan I wanted to send a small package back to the States. The postal people tried to insist that I spend 33 lire for a wooden box to enclose it. I rebelled against paying off the national debt in that manner, and finally won. . . . The law of self-preservation dictates that you do bargain at all times. A native would die of heart failure if any one paid what he first asked, and would you be guilty of murder?

You will soon find that centimes and patience last much longer if you have a distinct understanding before permitting any one to perform even the most trivial service for you. It is hopeless to have implicit faith that you will be charged "only a reasonable" amount. The entire army and navy will be called on to coerce you in paying what is asked unless there has been a bargain struck.

At a Naples pension we were much amused by a middle-aged couple whom we dubbed the "income-tax Americans." It was January. They were worried about their return not being in Secretary Mellon's hands by March 15. We were taking the night boat for Palermo, Sicily. "At what hotel have you reservations?" they asked. For answer we displayed a list of about eight potentialities. The incomers were shocked. Going to Palermo in season and no certified reservations!

During the entire year we wrote ahead for rooms only twice. Both times some one had overbid our arrangements, which automatically closed us out without further warning. So we gave the system up and found without exception that we could get better terms for the same or better quarters than guests who had written in advance. It is easy to understand, for when once a guest arrives who is committed by letter, he must take his host's word that the price quoted him covers only the room to which he is assigned. Of course there are better rooms, monsieur, but at a better price! On the other hand, if you bargain on the spot you hold the whip hand. In Florence at Easter-time every room is taken at a fancy price. A "padrone" scoffed at our offer of 40 lire per day each, yet accepted the proposition of 400 lire for ten days. Not an expensive manœuvre, but one that sometimes works by startling mine host by the size of the total.

Following is a list of prices derived from carefully balanced weekly accounts. The length of stay in a country somewhat determines the daily cost, because the lengthier the sojourn the less become the roving expenses per day. Even travelling third-class by rail in most countries, except Spain and Greece, where second-class is advisable, you will find that railroad expenses eat up about one-third of your money. We were over for a year, and in general found that to be true. A shorter or longer trip will make the ratio different of course. Also, Italy was having "Holy Year," which is another way of saying that our expenses in that country are probably listed about 20 per cent higher than would be the case under ordinary circumstances. The figures as given include all ordinary living expenses: all travel (except in crossing the Atlantic), all rooms, meals, tips, incidentals, etc. Gifts, visés, (because of their variation) and clothing are the only items omitted.

NAME OF COUNTRY	AVERAGE AMOUNT PER DAY PER PERSON IN DOLLARS AND CENTS	LENGTH OF STAY IN WEEKS
1. Belgium	$2.36	2
2. Italy	2.38	17
3. Austria	2.73	1
4. Germany	2.92	2
5. Constantinople	3.00	1
6. France:		
South	3.21	4
North	3.06	4
7. Holland	3.40	1
8. Portugal	3.46	3
9. Czechoslovakia	3.50	1
10. Greece	3.65	1
11. Spain	3.80	8
12. England	4.00	6

The grand average per person was $3.09 per day. Had it not been for my knowledge of German, the costs of Austria and Germany would be considerably higher than they were. Portugal and Greece at the time were not staging revolutions, but seemed to be seriously considering it.

(*To be continued*)

Waddy B. Wood, F. A. I. A., on Allied Architects Associations

Dear Editor:

Below is my argument against the Allied Architects principle, which you were so kind as to suggest that I write.

This association was formed with the thought that mass formation could bring us commissions for important buildings now being given to outsiders. This argument is an admission that thirty-five local architects are equal to one outsider. In my opinion, thirty-five partners could not design one house, but one man with thirty-five employees is necessary to design a great building.

I claim that if I were told to add up 2 and 2 to make four, I could do it better alone than with thirty-five men making suggestions and adding to my expense. I claim that if I tried to do architecture this way, it would be an admission on my part that I needed these men and their casual remarks, with the expense of many unnecessary drawings to help me solve my problem; and I also claim that a problem given to an architect to solve is not solved when he gives three answers. While I want advice and seek criticism in designing, I don't want thirty-five men with equal power, each clamoring for his idea, to make a Brunswick stew of something that might have been a design.

In a recent reference to the Allied Architects, there is the following: "Never in the history of the Chapter has any interest brought the local architects into closer working harmony than the first project of the new corporation, the preliminary plans for the new House of Representatives Office Building." The Washington Chapter has one hundred and eleven members, and as I am told the Allied Architects consist of thirty-five members, it does seem misleading for this statement to get to the public, because it represents approximately one-third of the members of the Chapter. Another quotation from this number: "There has been organized by a nucleus from the Washington Chapter a corporation known as the Allied Architects of Washington, including thirty-five of the ablest practitioners associated for public and semipublic work." This unproven statement would indicate that the ablest practitioners in Washington are in this group of thirty-five, which is a great reflection on the majority of the members of the Chapter who do not belong to this group, and is very misleading to any one reading the article.

It would be to me very humiliating to admit that I needed all these other men to help me design a building, and I have often wondered just what is in the back of their minds in trying to do this thing. Is it a feeling that they have no confidence in themselves? Is it a mental laziness that makes so many think that out of a series of wrong answers they can accidentally get a right one? As this idea (in which the average of all is the scale, and mediocrity the result) grows in power, it becomes a dangerous union that will eventually starve out the individual who has confidence enough in himself to believe that he can design buildings for his clients.

In closing, I would like to say that I like all of these thirty-five men, and am conceited enough to think that they like me, and if I thought otherwise this article would not be written; therefore, I am telling my friends that their idea is destroying individualism, the right to which is the very fundamental underlying basis on which our republic has outdistanced other countries.

Waddy B. Wood, F. A. I. A.

The Art of the Landscape Architect

THE Second Annual Exhibition of the New York Society of Landscape Architects, at the Arden Gallery in the Scribner Building, 597–599 Fifth Avenue, has an appeal for nearly every one these days. It has naturally attracted wide attention from lovers of the outdoors.

Wall-fountain and bird-bath, Briarcliff Manor, N. Y. Armand R. Tibbitts, Landscape Architect.

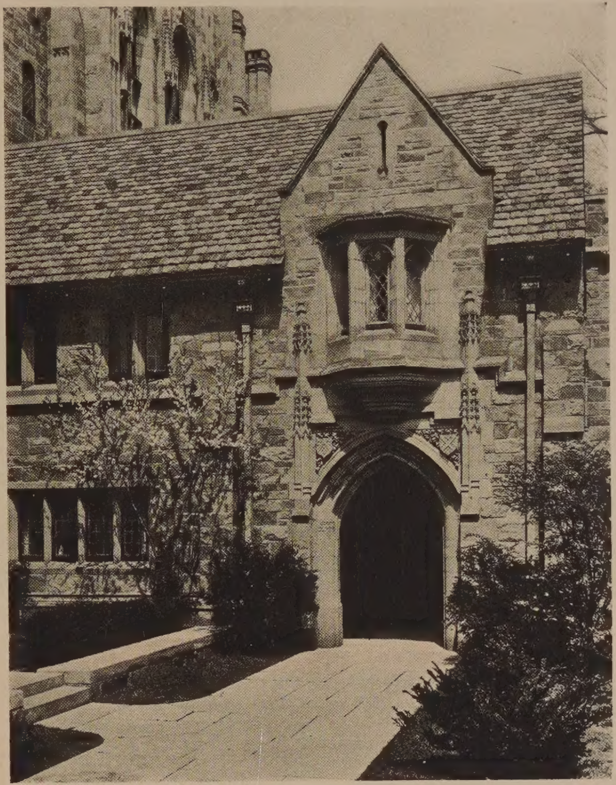
Members of the National Sculpture Society have contributed appropriate garden sculpture, and there are examples of the work of various artisans concerned in the designing of garden furniture and accessories. The work of the landscape architects shown includes the development of large estates, and also the simpler setting of the small house or remodelled farmhouse, where an intimate garden and informal paths add their particular charm.

The landscape architect's part in the development of the home grounds, large or small, is made most attractively apparent in the many photographs shown in this delightful exhibition.

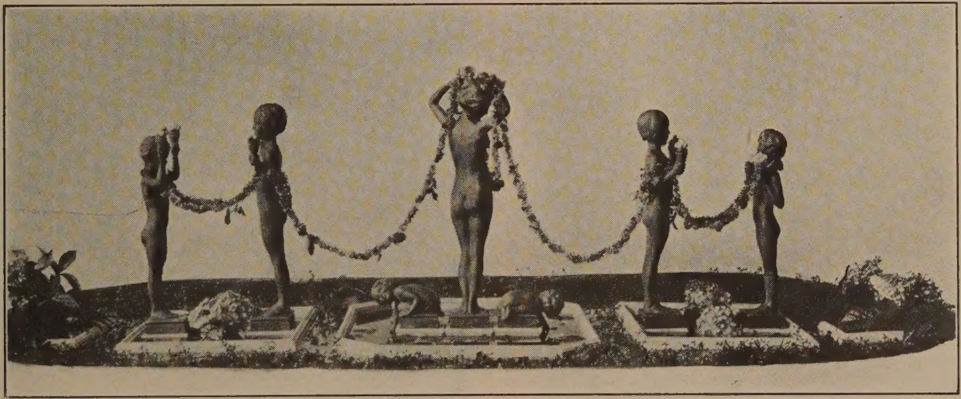
Too many places are cluttered up with haphazard and inappropriate planting. The fact that the planting can be made an integral part of the house design and site, accenting or softening lines with a fine artistic effectiveness, is something that only the trained landscape architect is apt to consider.

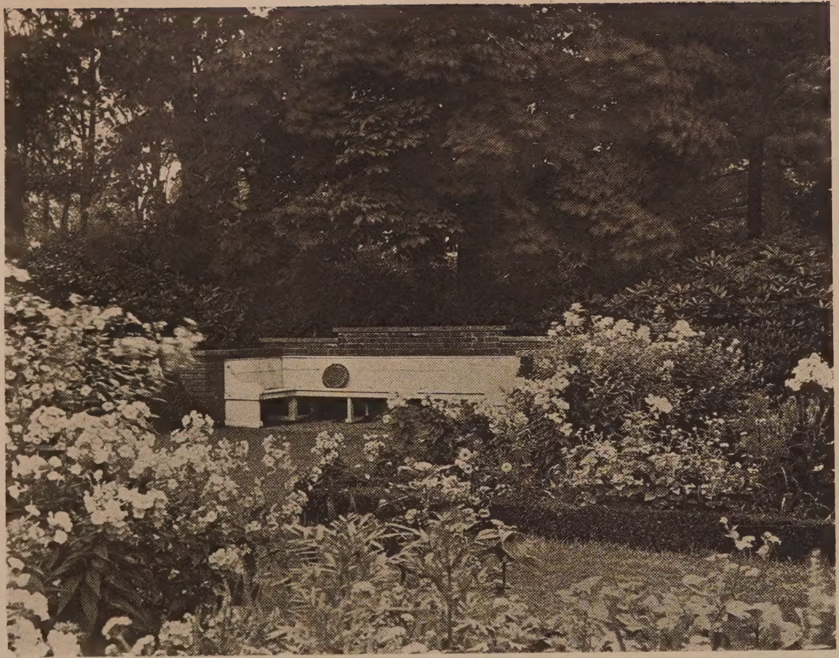
Of course a thorough knowledge of the decorative value of the forms and colors of various plants, and their time of bloom, is also necessary to a harmonious and continuous impression.

Good taste is not by any means always an accompaniment of a mere "love" of flowers and trees.

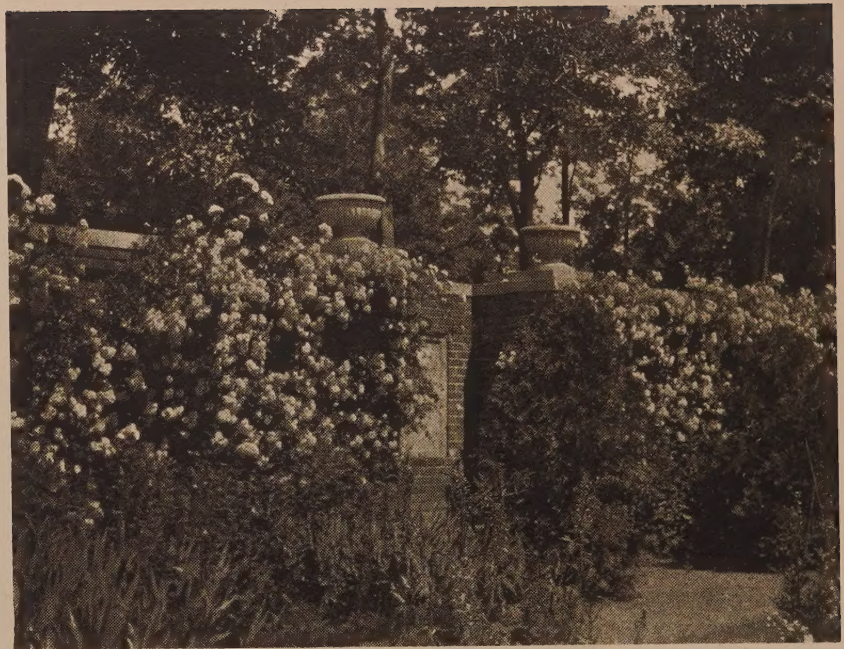

Drummers Gate, memorial quadrangle, Harkness Memorial, Yale University. James Gamble Rogers, Architect; Beatrix Farrand, Landscape Architect.

A few simple plants, judiciously placed, are worth a whole plantation of badly arranged and expensive exotics.

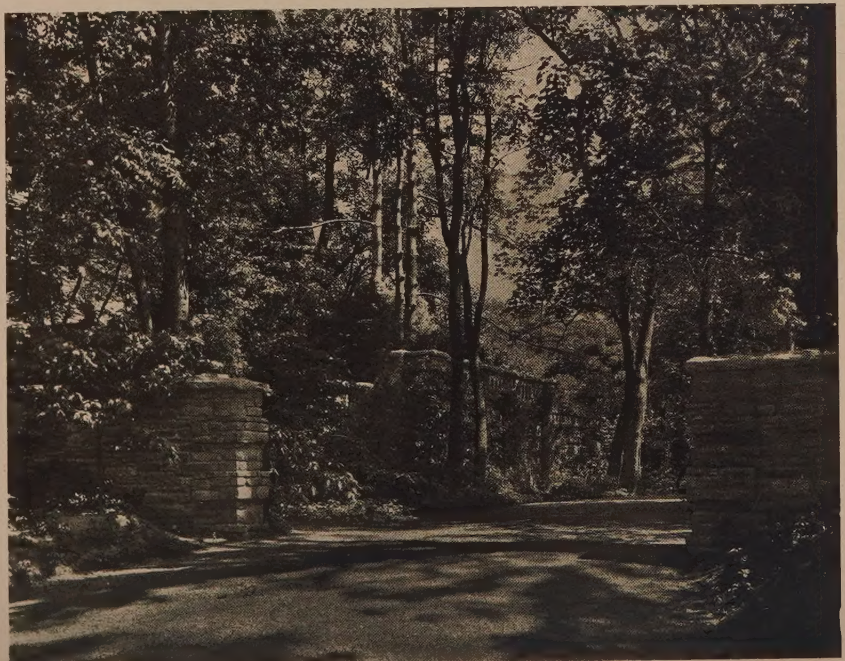

The Flora Fountain Group. For lights, running water, and flowers. Unique in its arrangement, can be set in various ways for inside or outside use. Willard D. Paddock, Sculptor.



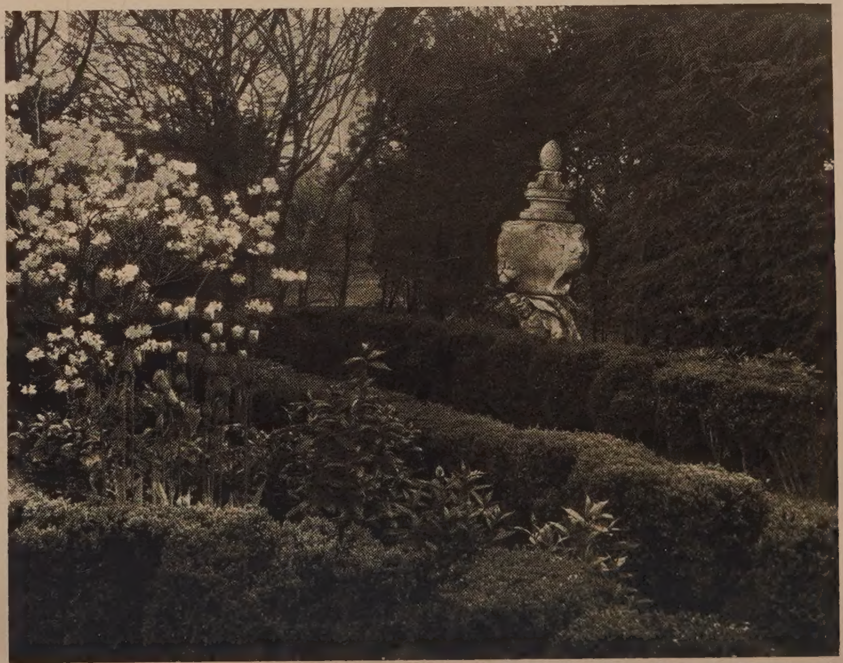
Garden, R. High Carleton, Syosset, Long Island, N. Y. Prentice Sanger, Landscape Architect.



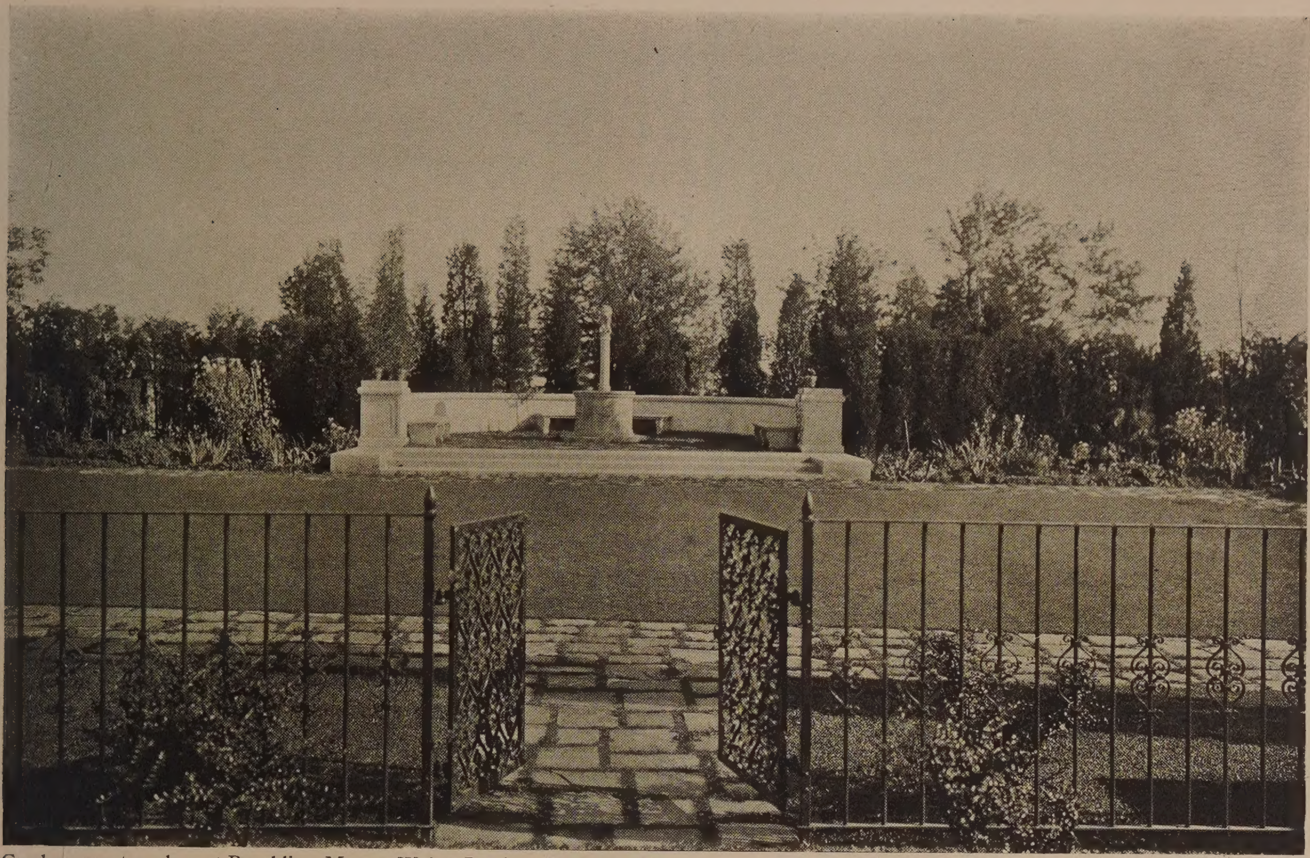
Rose garden wall, estate, Robert D. Foote, Morristown, N. J. Charles Wellford Leavitt & Son, Landscape Engineers.



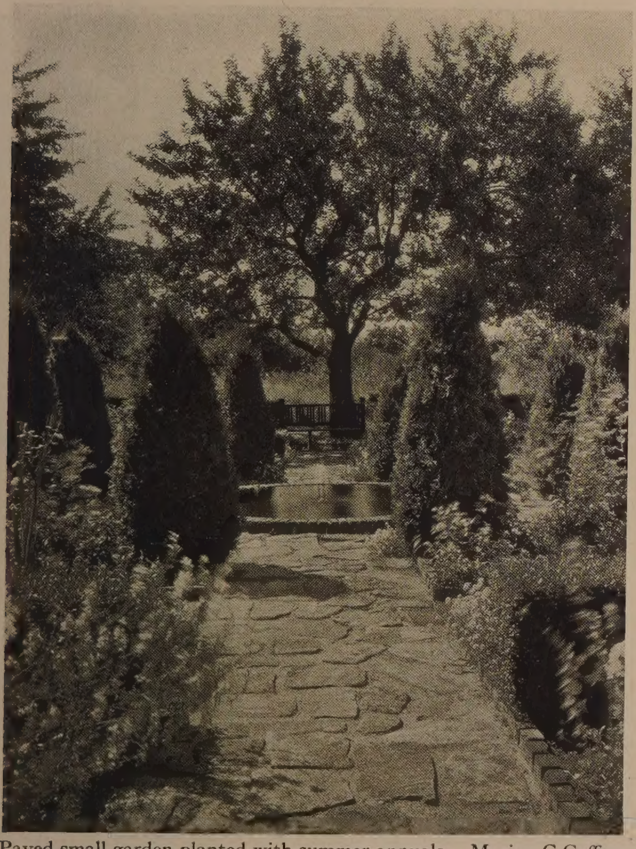
Garden wall and gateway, Maitland F. Griggs, Ardsley-on-Hudson, N. Y. Robert W. Gardner, Architect; Harold A. Caparn, Landscape Architect.



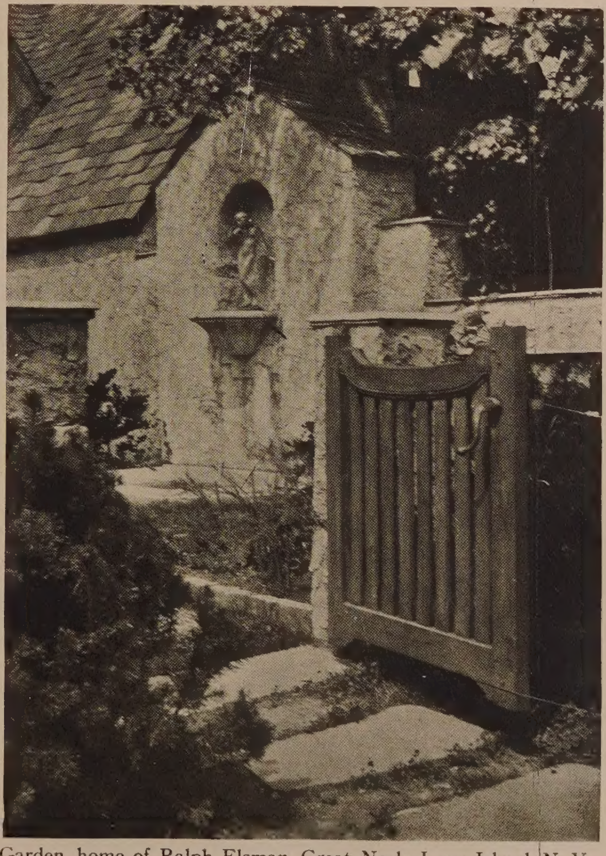
Garden, Mrs. Robert Bacon, Westbury, Long Island, N. Y. Mrs. Wm. A. Hutcheson, Landscape Architect.



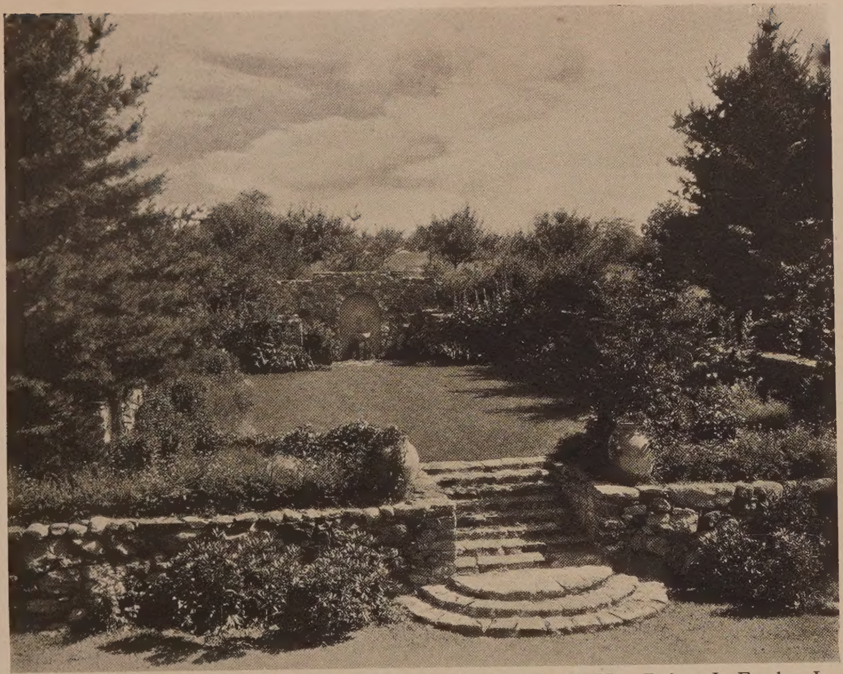
Garden, country-place at Brookline, Mass. Walter Bradner Kirby, Architect; Ferruccio Vitale and Alfred Geiffert, Landscape Architects.



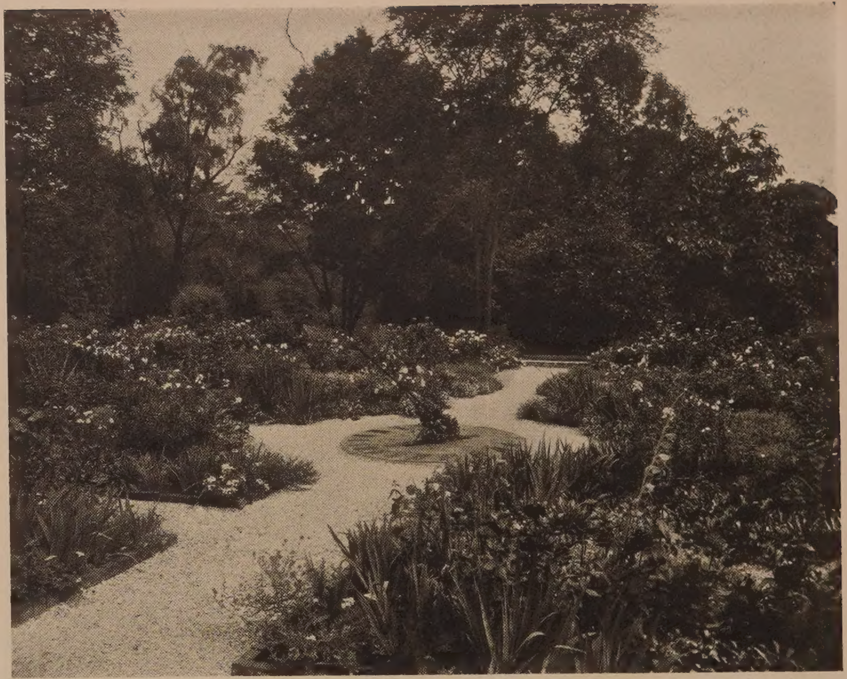
Paved small garden planted with summer annuals. Marian C. Coffin, Landscape Architect.



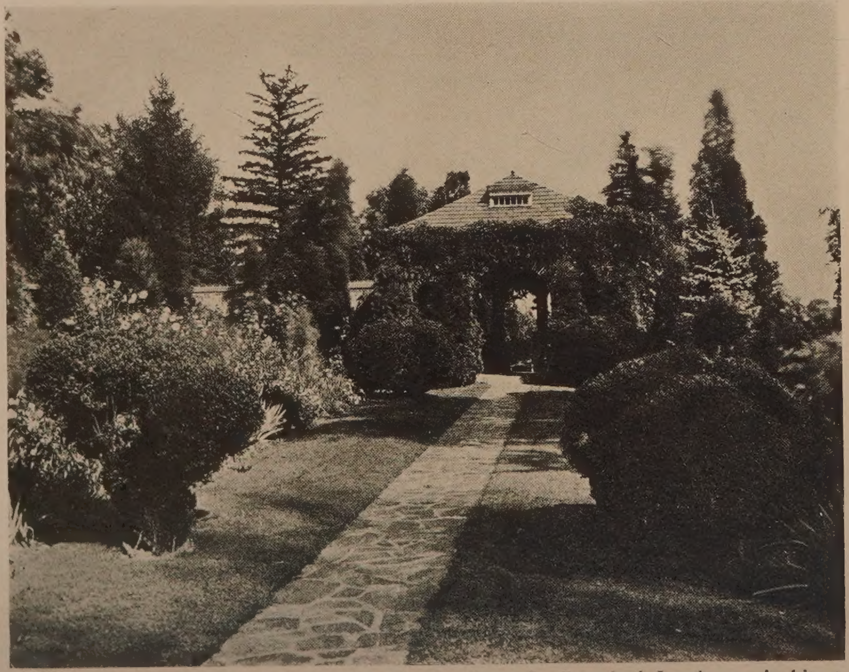
Garden, home of Ralph Elsman, Great Neck, Long Island, N. Y. A. F. Brinckerhoff, Landscape Architect.



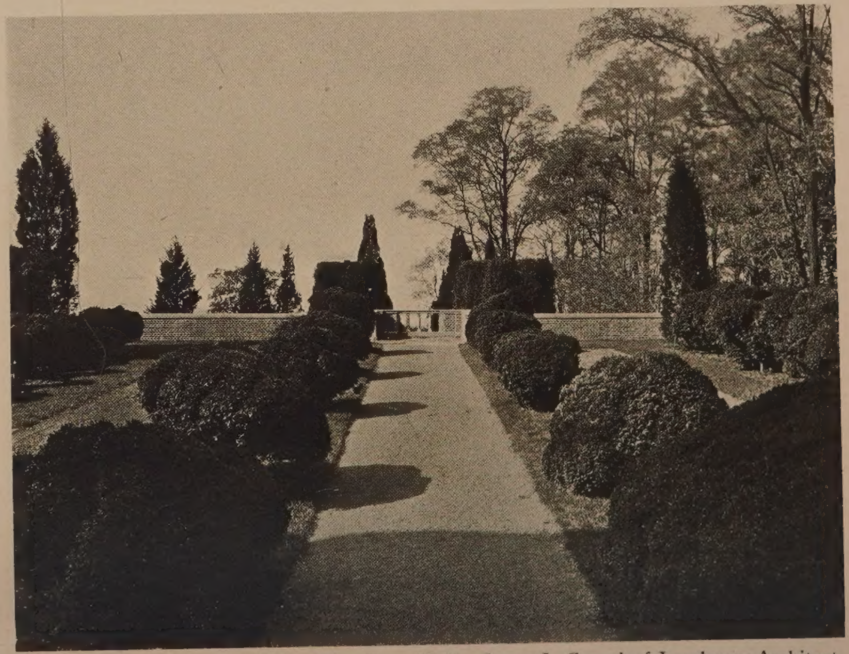
Wall-fountain and garden, Mrs. Edwin Tatham, Lincolndale, N. Y. Robert L. Fowler, Jr., Landscape Architect.



Dial garden of Mr. and Mrs. H. T. Crawford, Orange, N. J. Clarence Fowler, Landscape Architect.



"Grayhampton," H. L. Croft, Greenwich, Conn. James L. Greenleaf, Landscape Architect.



Upper Terrace, Herbert L. Pratt, Glen Cove, N. Y. James L. Greenleaf, Landscape Architect.

ARCHITECTVRE*
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THE PROFESSIONAL ARCHITECTVRAL MONTHLY
*Reg. U. S. Pat. Office

Editorial and Other Comment

Allied Architects' Associations

THERE has been considerable discussion recently of the value of allied architects' associations, and here and there some sharp criticism. That there is an increasing interest in them and a tendency to question their usefulness is evident in the following communication from President Waid of the American Institute of Architects.

We consider the matter of such importance that we are quoting in full President Waid's letter for the consideration of all of our readers, whether they are members of the institute or not.

Our own attitude has been one of receptivity, and our only desire has been to hear from those best qualified to judge the pros and cons of a question that has evidently become one of vital interest.

"FELLOW MEMBERS OF
THE AMERICAN INSTITUTE OF ARCHITECTS:

"A major problem before the architectural profession during the past five years has been that of practice by architects brought together in business combinations commonly called 'allied architects' associations.' Nearly a dozen such organizations have been formed or are in contemplation. Various causes have led to this trend in practice.

"It might be assumed at the outset that so long as such combinations are formed in a legal manner and conduct their business on ethical bases there could be no more objection to them than to the old-time firm or corporation of three to five architects. Obviously, however, the profession has sensed the fact that practice by large groups like commercial business by great corporations may threaten monopoly, and is bound to raise new problems. Urgent protests, and severe criticism by individual architects, and requests from chapters for guidance in the matter, have brought the whole subject before the Board of Directors of the American Institute of Architects.

"Preparatory to discussion of the matter by the 59th Convention, the Board has instituted inquiries for facts and principles involved. The following may be considered as a preliminary report to the membership designed to present briefly the present aspects of the situation.

"In the first place, the method of organization in favor seems to be an incorporated body whose stockholders are competent, reputable architects of a given city or section. In some cases the corporation is permanent and in others limited to one specific undertaking. In some cases the corporation is a non-profit affair beyond moderate compensation for work done by each individual, and the profits are devoted to the interest of architecture by establishing scholarships, libraries, or supporting architectural schools. In others, profits are divided among the stockholders, or go into the chapter treasury.

"In the second place, reasons are given in advocacy of practice by groups, as follows:

(a) To secure public work which otherwise would be awarded to incompetent architects whose chief qualification is political pull.
(b) To render the best public service by the co-operative effort of the most capable and experienced talent, which should produce the finest architectural achievement.
(c) To eliminate wasteful competitions.
(d) To enable local architects to do local work by combining against outside practitioners.
(e) To give all the members an interest in public buildings. To benefit architecture by increasing opportunities for young men to get experience on important work in collaboration with older architects. To secure training and development of the whole group by conference, consultation, and criticism.
(f) To benefit chapter finance.

"In the third place, disadvantages of group practice are claimed by its critics to be:

(a) Tendency to draw the profession into politics.
(b) Cutting off individual opportunity and profit.
(c) Want of personal responsibility to clients.
(d) Advertising and other activities of an association bring it into unfair competition with the individual practitioner.

"In the fourth place, discussion thus far indicates certain dangers in group practice:

(a) The failure of one man in a group to discharge his duty may bring discredit on the whole association. In one case it is reported that want of effective supervision allowed a contractor to do defective work which resulted in cancellation of the commission of many thousands of dollars to a group of some fifty architects, who not only lost their fees on several millions of dollars of work, but were publicly discredited as well. Manifestly, a group must assume responsibility for the acts of every one of its members, whether the lapses be ethical or æsthetic or financial in their results.
(b) The power of a combination of men to get work may lead to monopoly. Shutting off opportunities to individuals who may choose to practise alone seems to them unjust and likely to engender bitter feelings.
(c) Continued success of a group tends to carry them into undue political activity.

(d) A group of architects in successful practice may easily dominate chapter policies and gradually usurp duties and activities belonging to chapters and even to the institute as a whole.
(e) There is the question of fair dealing between architects, and as to whether it is possible for a large body of men engaged actively in soliciting work through hired agents to exercise the same careful censorship of publicity that the honorable practitioner maintains.
(f) There is grave danger to the profession when a group organization's continuance suggests permanence and continued encroachment upon the field of the outsider.
(g) Individuality of expression is necessarily curtailed and artistic merit may consequently be limited.

"In conclusion: It is desirable that each chapter of the institute shall discuss this subject as fully and frankly as it pleases before the next convention. In the meantime, the Board of Directors urges the advisability of a cautious and conservative attitude. A new method, however laudable its motives and admirable its results, if it contains the seed of discord, deserves thorough consideration before being adopted.

"Each group contemplating the formation of an association is recommended when formulating its plan of organization to safeguard the following considerations, which the Board of Directors regard as fundamentally important in the practice of architecture:

(1) It is for the best interests of architectural design that the designer or designers of any architectural work should receive personal recognition and credit.
(2) It is essential that personal responsibility for all professional services should be maintained as clearly as in individual practice.

"The first of these conclusions involves the integrity of our art. The second involves the proper protection of our client's interests.

"It has, therefore, by the Board of Directors, been

'Resolved, that while circumstances may arise which render it expedient to form an Allied Architects' Association in the public service and for specific work, none the less the Board believes that the formation of such associations for general practice is not in the best interests of the art of architecture and that therefore the definite establishment of an association bringing together a large percentage of the practitioners of a given section to practise architecture as such an association is to be discouraged.'

"Respectfully submitted,

D. Everett Waid,
President."

Will They Be Built?

We have frequently pointed out the utter inability of any normal solution of the housing problem in New York and other large centres of population.

Speculative builders are only interested in large returns, and the number of people able to pay the large rents demanded seems to grow with surprising rapidity. There are no longer any places for the man or woman of modest income. Apartments that used to rent for forty or fifty dollars are now readily rented at twice these amounts, and there are no new places thought of at less than twenty-five dollars a room for a minimum.

Thousands of city workers have been compelled to move to the country and to consume valuable time and pay extra rent in the way of carfares.

In our last issue we referred to the success of the apartments built by Mr. Thomas for the Bayonne Housing Association, and the development of the Metropolitan Life Insurance Company on Long Island has further shown that a solution is possible.

Of course the immediate question now is, if possible, to devise some plan by which moderate-cost apartments can be built in the city. Apparently they cannot be built under present conditions in the realty market.

Governor Smith has proposed a State housing board and a State bank, the bank to exercise the power of eminent domain to condemn property for large-scale building, and the power to issue tax-exempt bonds up to two-thirds of the value of the project.

Following Governor Smith's proposal, it is said that a number of wealthy men stand ready to put their money into buildings that will ultimately eradicate the slums as they have existed from time immemorial.

Mr. Andrew J. Thomas, the architect of the Bayonne houses, says the new tenements can be built within the governor's proposals.

Now that the subject has been taken up seriously as a matter of grave public moment, perhaps something will be done. Heretofore it has been chiefly discussed by speculative builders and realty men looking for quick returns and large profits. When it becomes a matter of reasonable returns on a safe and sound investment things begin to look up.

In Honor of Mr. Blashfield

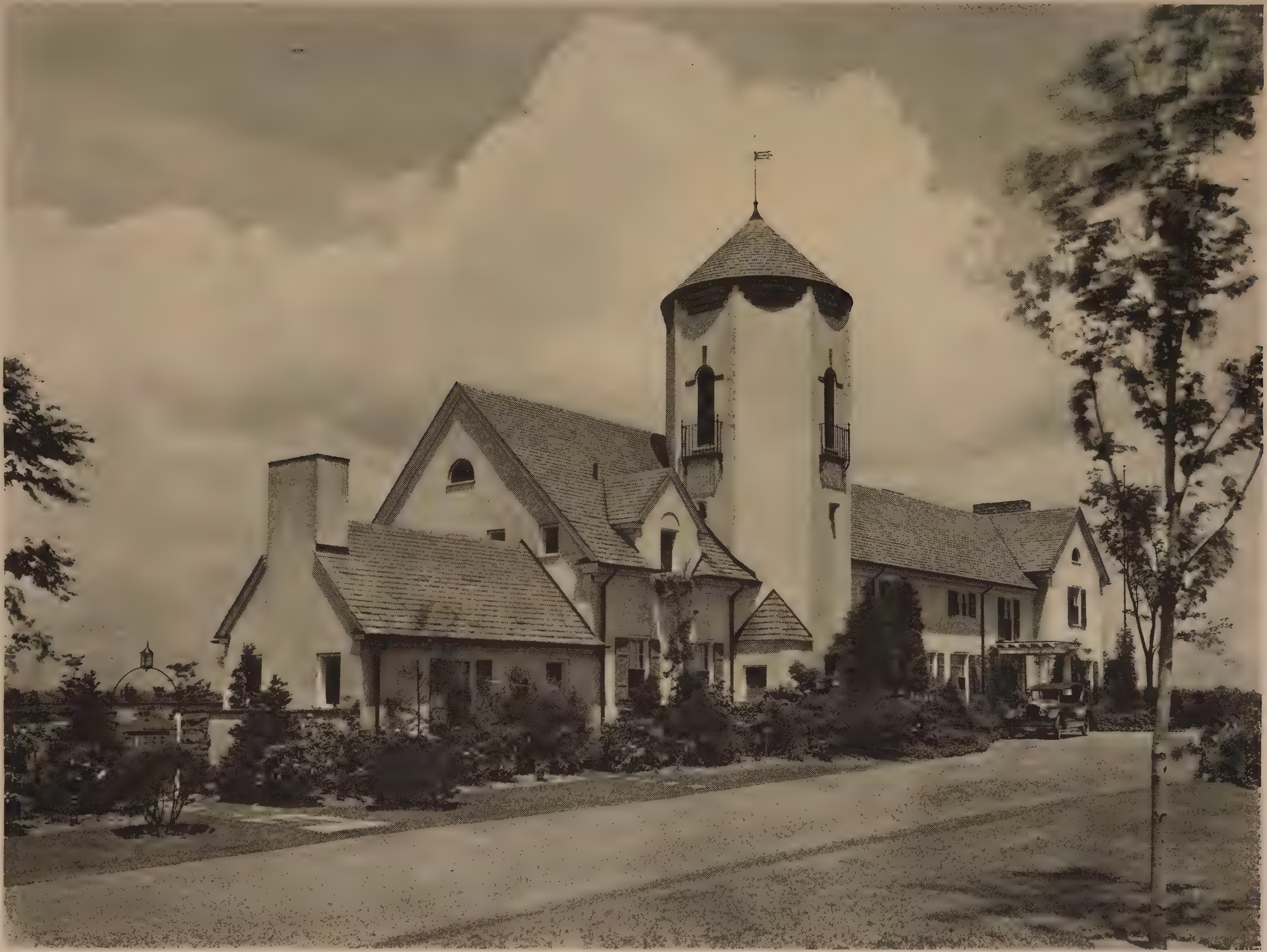
At a recent dinner at the Salmagundi Club, New York, Mr. Edwin Howland Blashfield, known to all lovers of American art as the dean of our mural painters, was the guest of honor.

Mr. Blashfield has for many years contributed not only his work but his fine enthusiasm and tolerance to the betterment of American art in general. As painter and president of the National Academy of Design he has ever been an inspiration and an unfailing encourager of younger men and of all that has stood for the best in all the arts. His beautiful murals adorn public and private buildings in many of our leading cities, and his work has always had a fine seriousness and dignity.

Mr. Blashfield read some delightfully entertaining reminiscences of his early student days in Paris, where he went as a youth of eighteen in 1867.

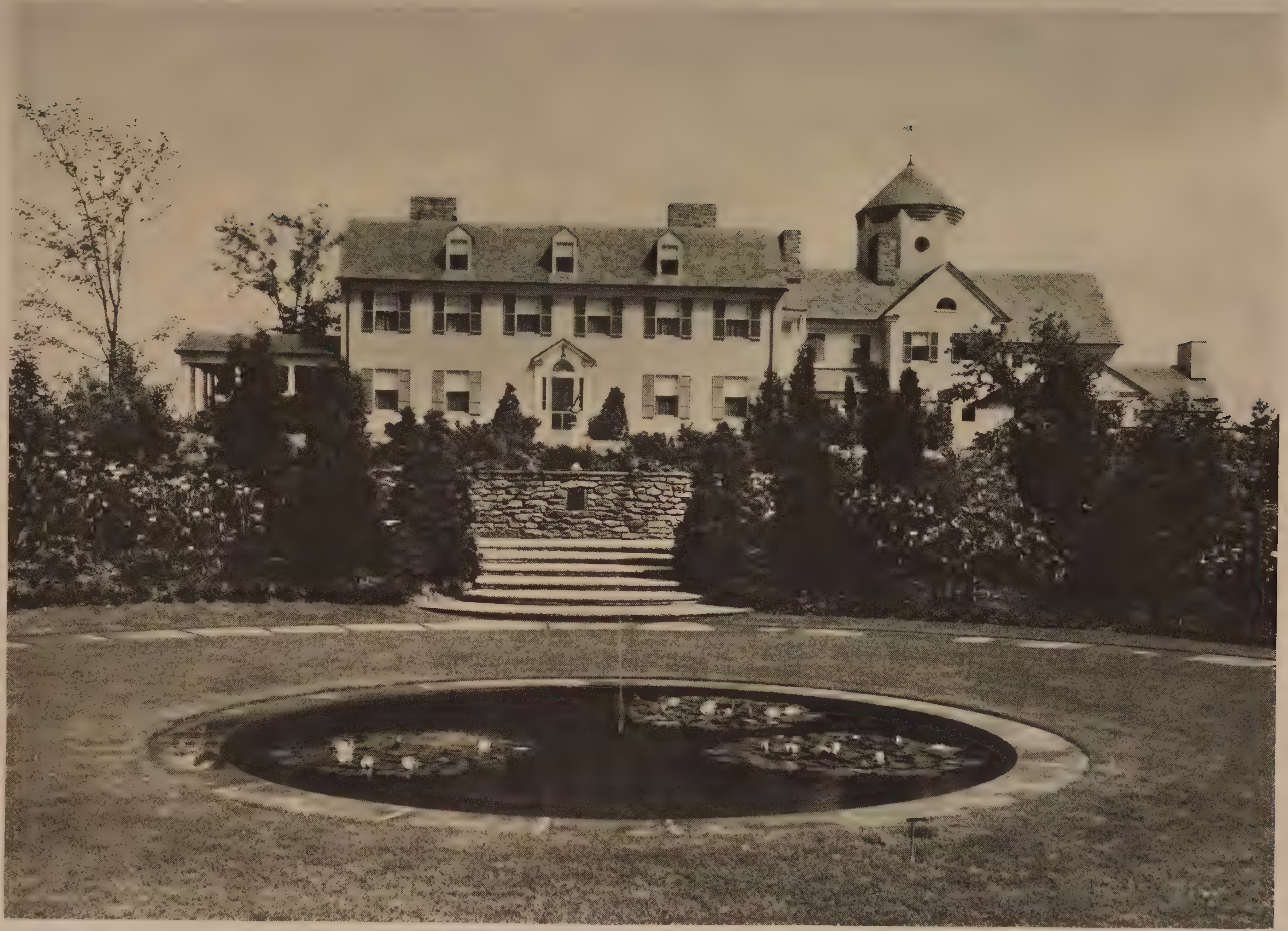
He spoke of many of the great personalities in art and letters of those days, and told some amusing stories of the ways of students.

Mr. Cass Gilbert, another guest of the occasion, with whom Mr. Blashfield has been associated in some of his important work, said: "Mr. Blashfield has left to his country a heritage of charm and beauty in his paintings. You are more the patron of art than the man who merely spends his money to buy it; you provide the impulse." Mr. Herbert Adams, the sculptor, and a past president of the Academy, said that "as an artist and citizen Mr. Blashfield had never failed to respond to the call when he could aid art or his country."



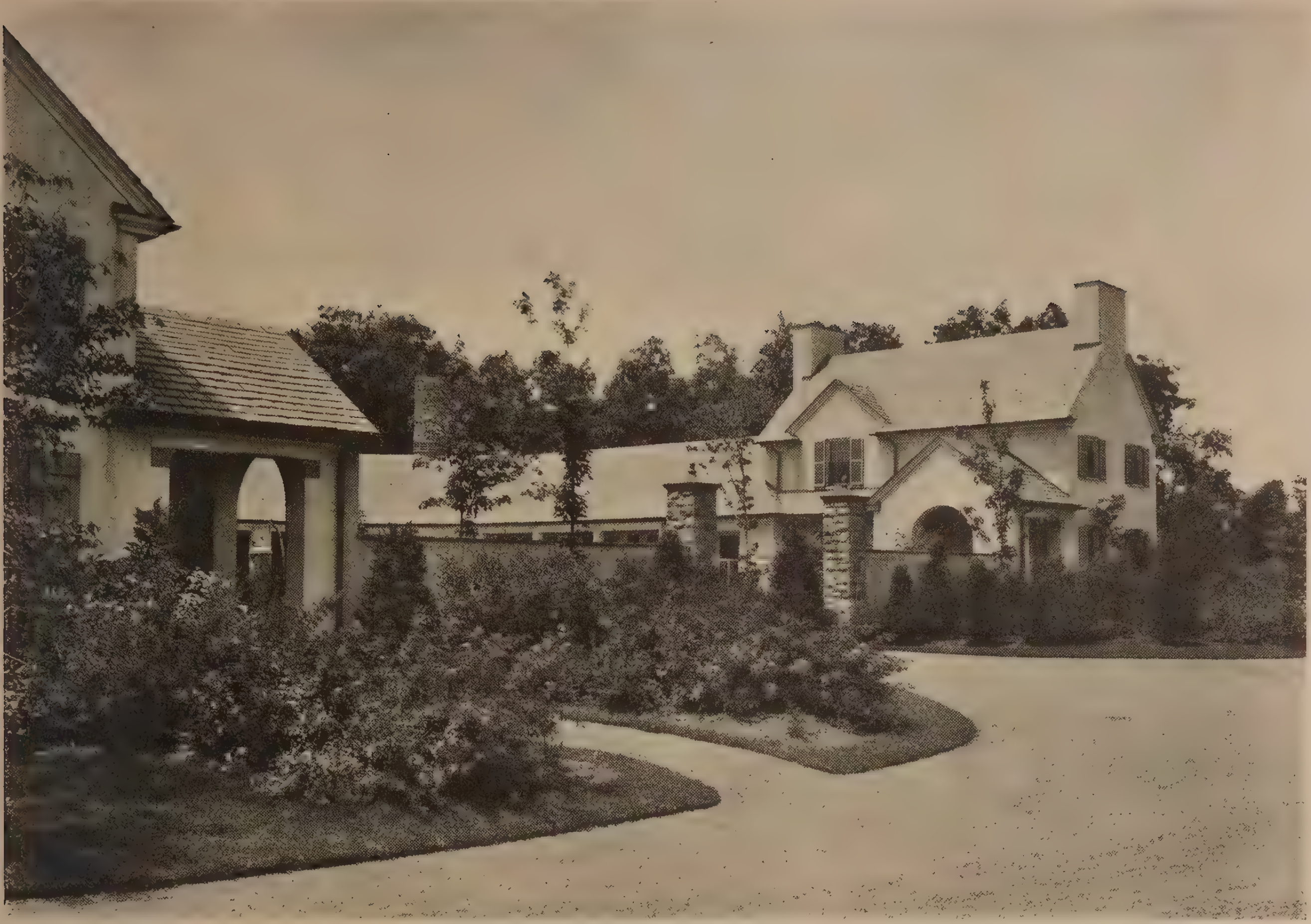
RESIDENCE, LEWIS A. PARK, SEWICKLEY, PA.

Ingham & Boyd, Architects; Wm. Pitkin, Jr., and Seward H. Mott, Landscape Architects.

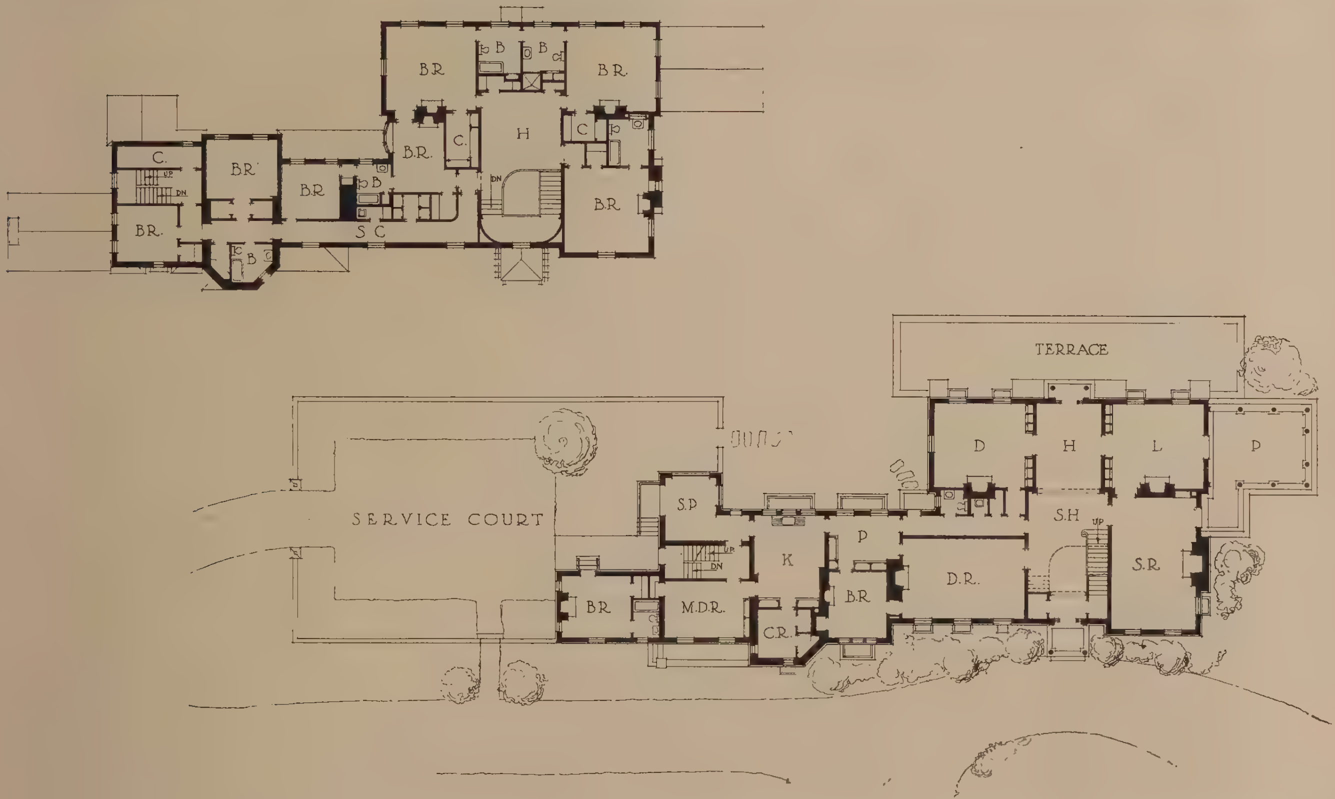


TERRACE FRONT, RESIDENCE, LEWIS A. PARK, SEWICKLEY, PA.

Ingham & Boyd, Architects; Wm. Pitkin, Jr., and Seward H. Mott, Landscape Architects.

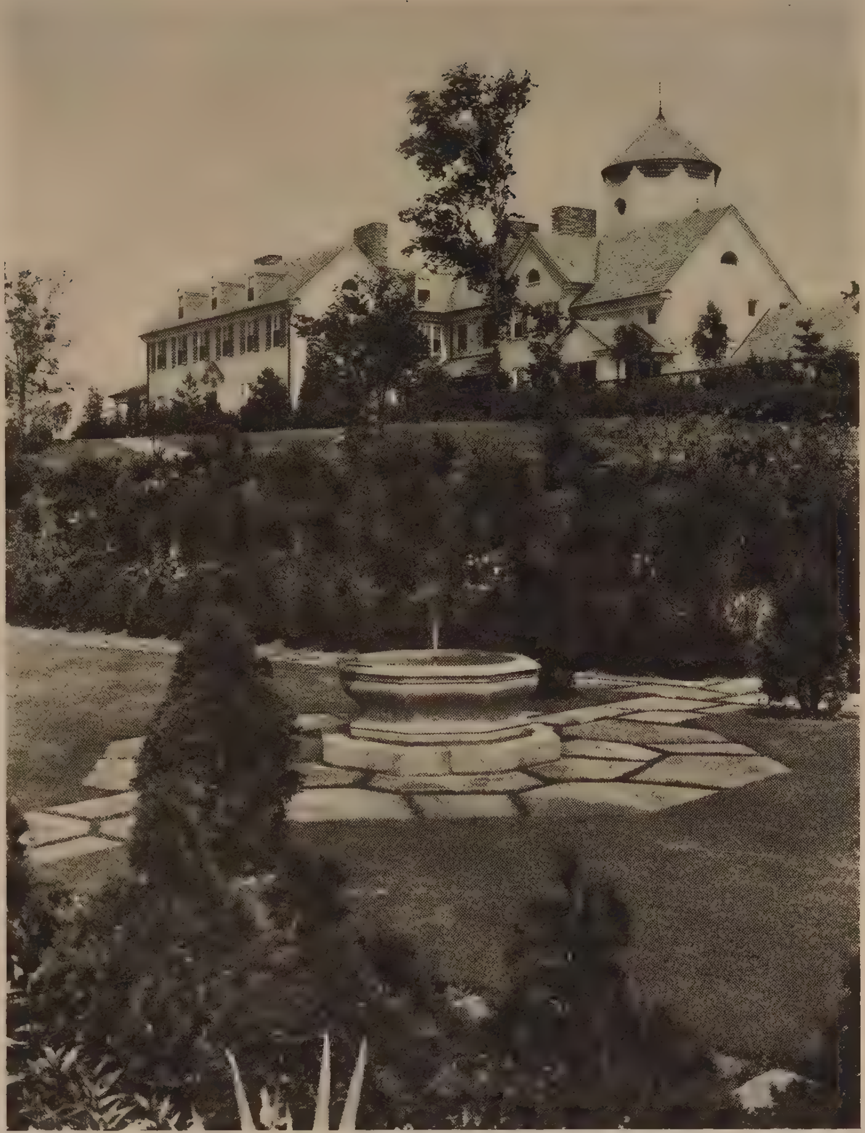


FARM BUILDINGS.

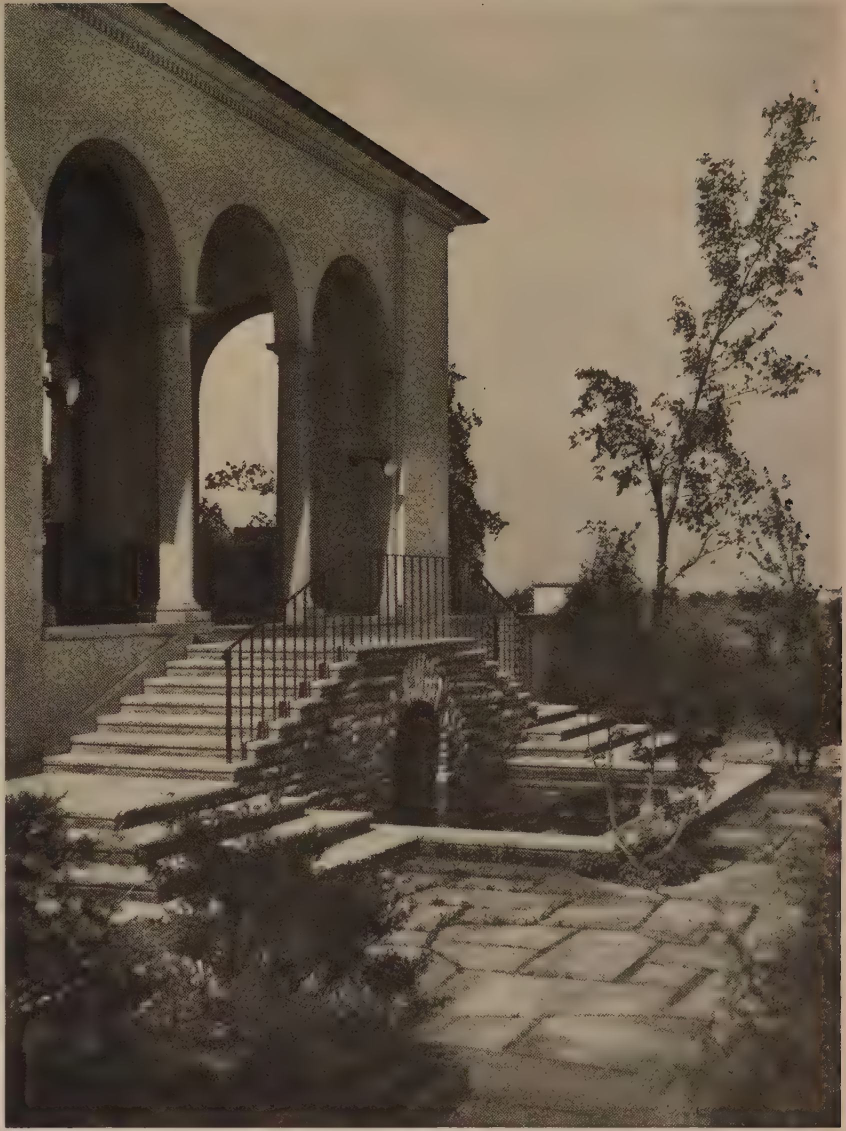


PLANS. Ingham & Boyd, Architects; Wm. Pitkin, Jr., and Seward H. Mott, Landscape Architects.

RESIDENCE, LEWIS A. PARK, SEWICKLEY, PA.



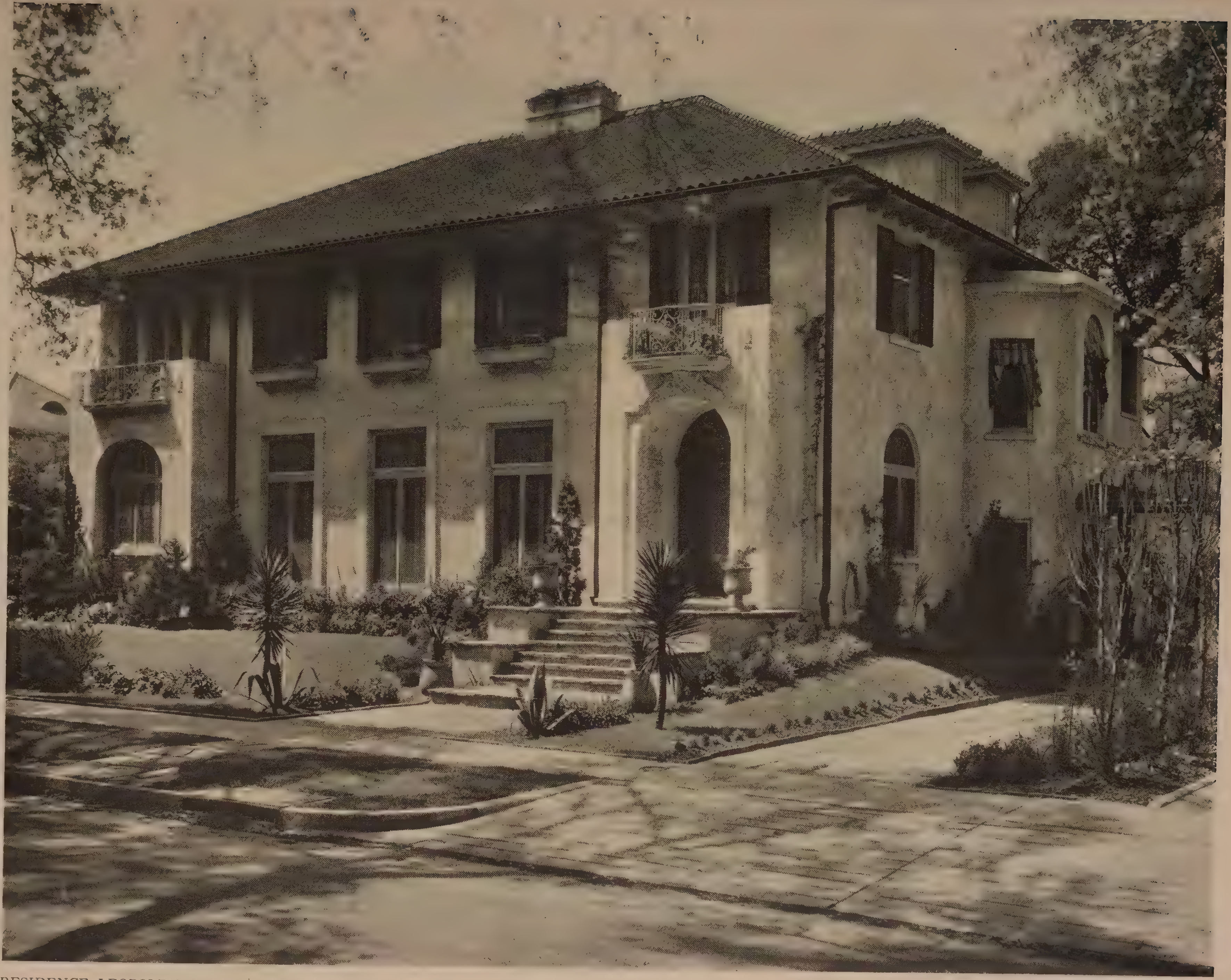
GARDEN.



DETAIL.

RESIDENCE, LEWIS A. PARK, SEWICKLEY, PA.

Ingham & Boyd, Architects; Wm. Pitkin, Jr., and Seward H. Mott, Landscape Architects.



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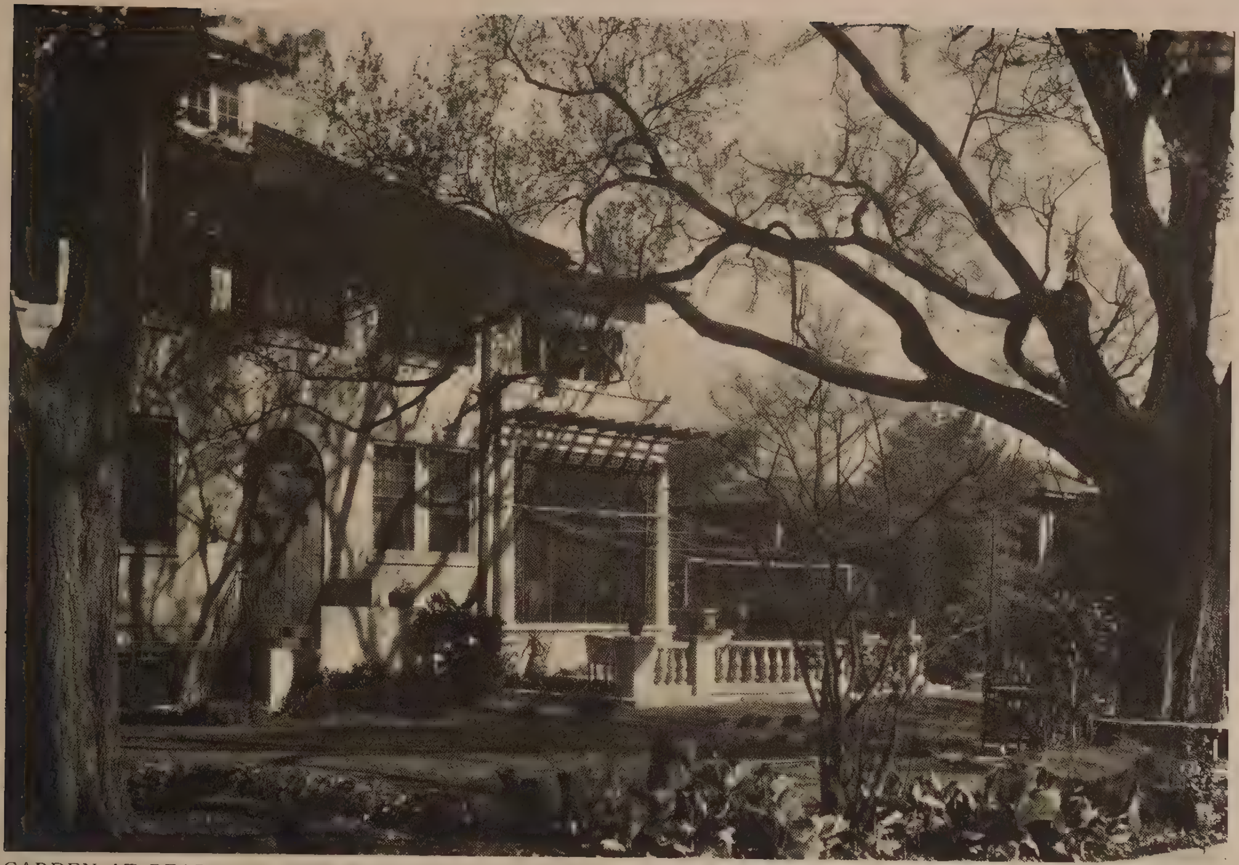
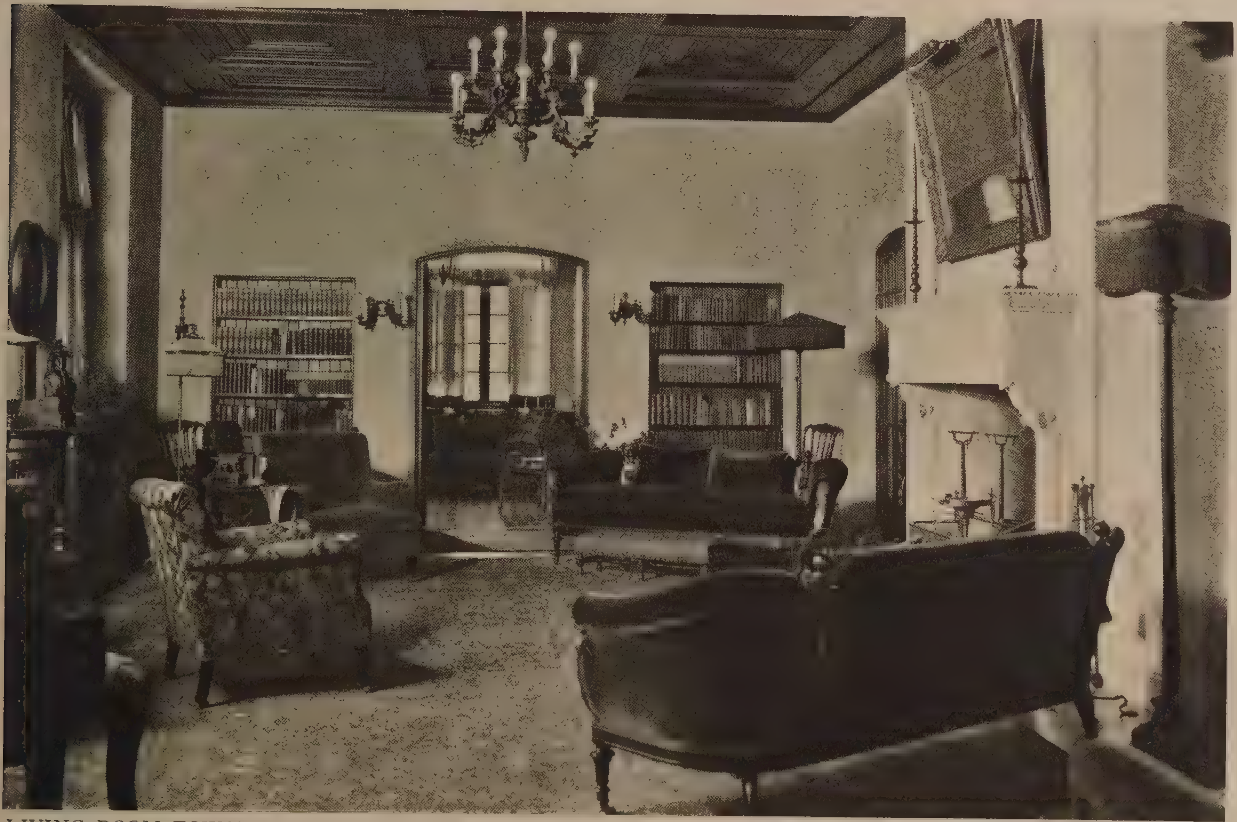
Moise H. Goldstein, Architect.



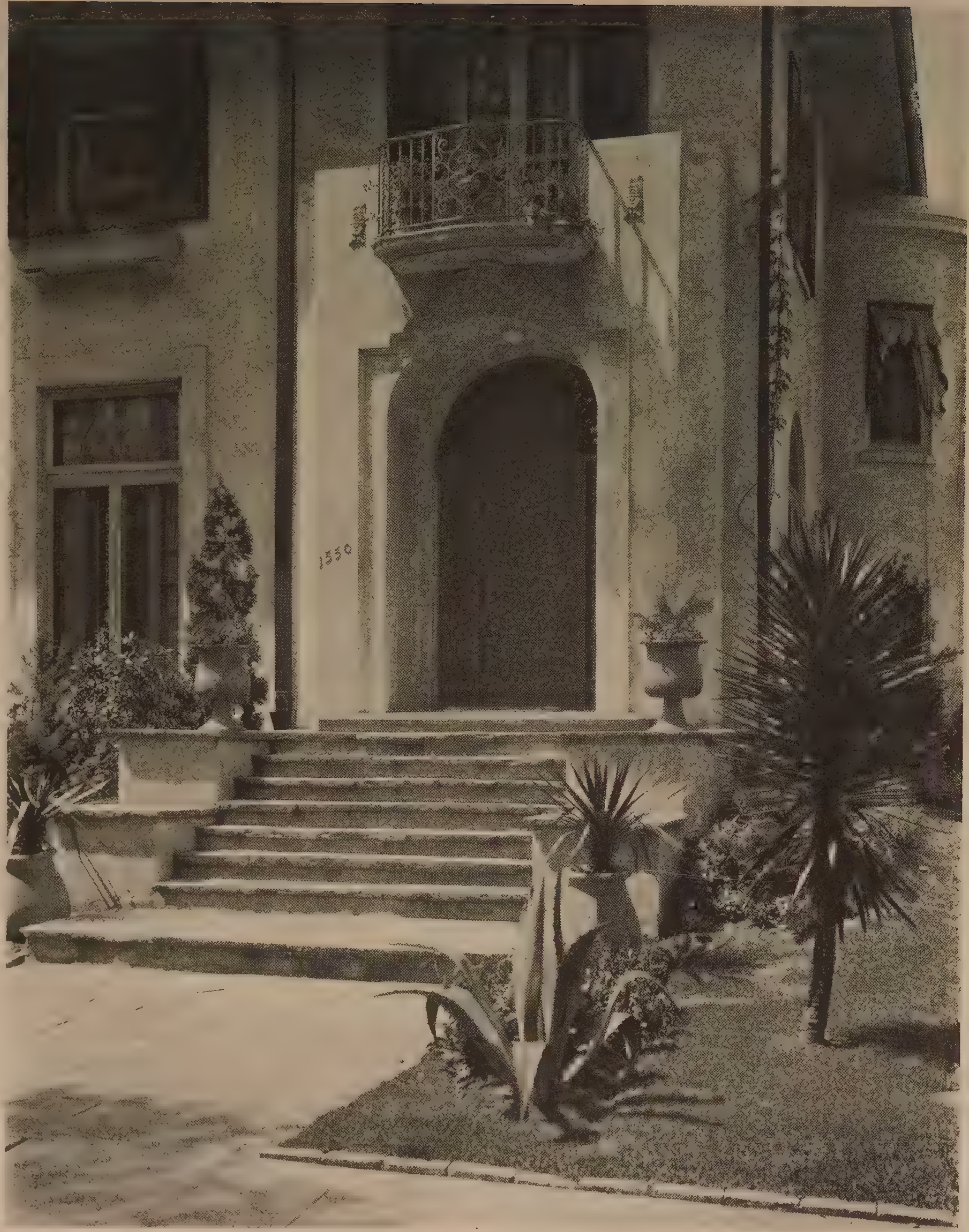
GARDEN AT REAR.



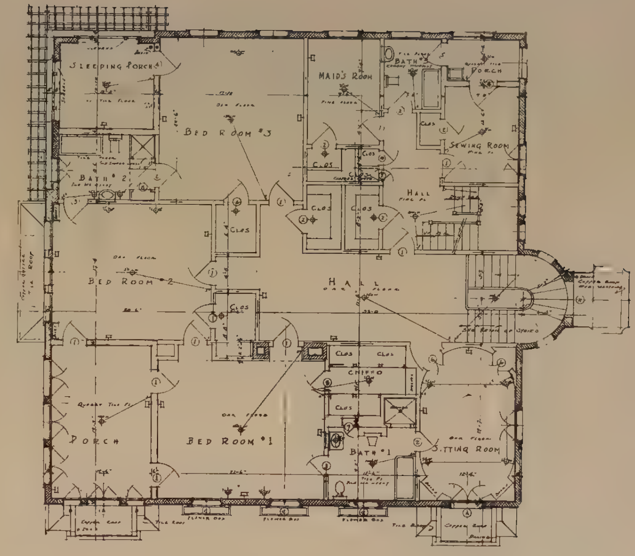
LIVING-ROOM TOWARD LOGGIA.

Moise H. Goldstein, Architect.

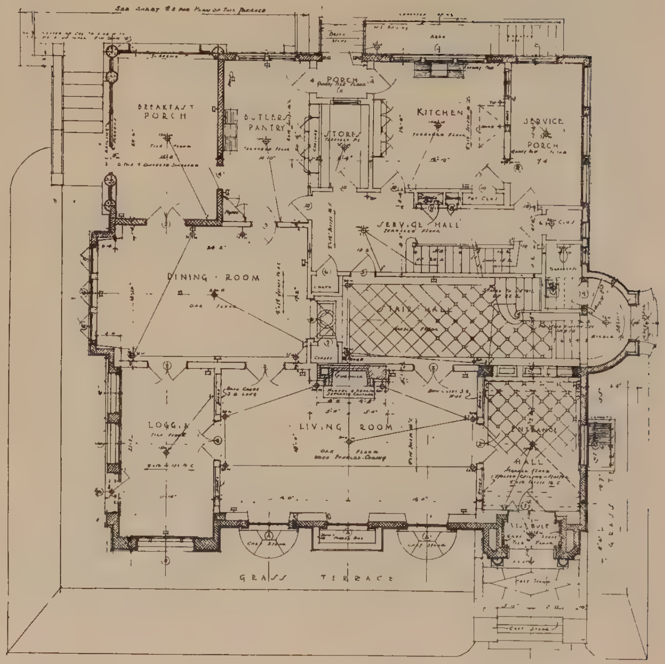
RESIDENCE, LEOPOLD FEIBLEMAN, NEW ORLEANS, LA.



DETAIL OF ENTRANCE.



Second Floor Plan

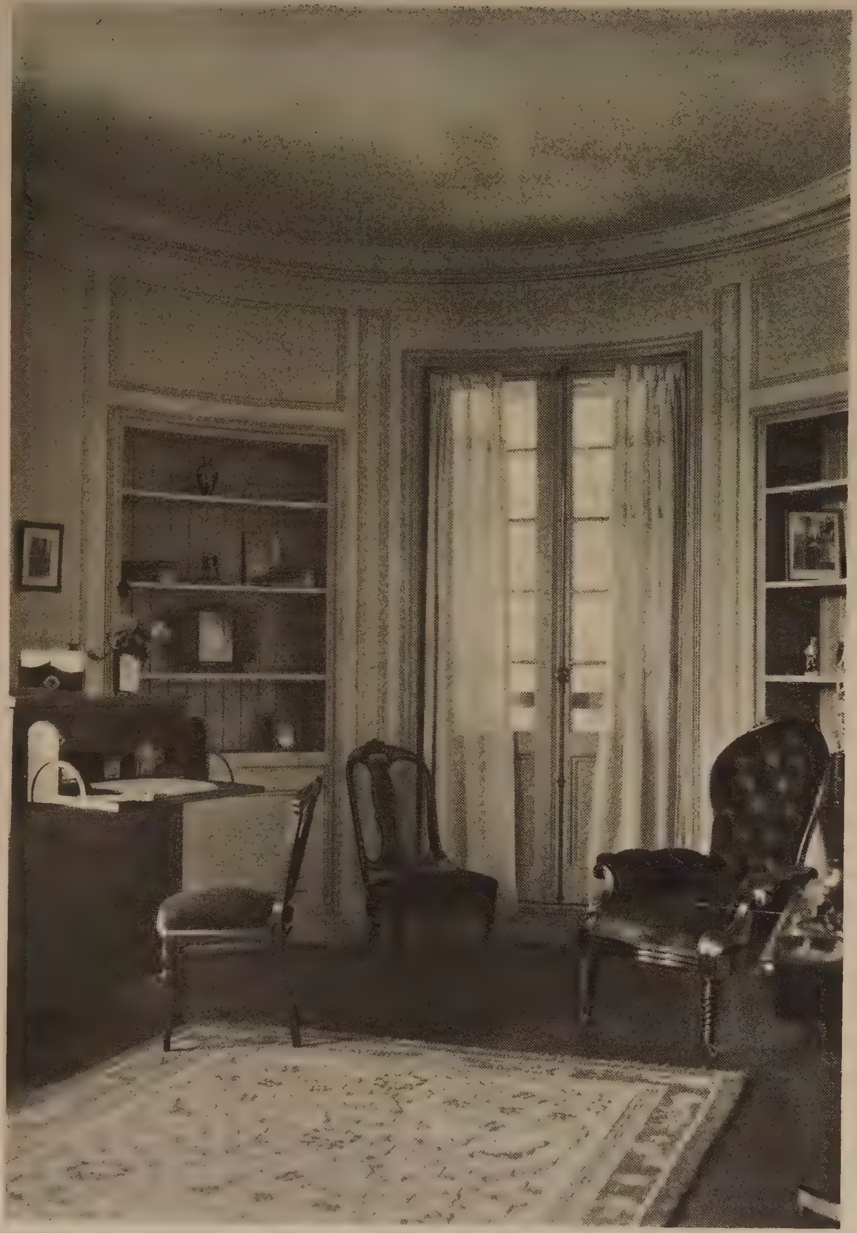


First Floor Plan

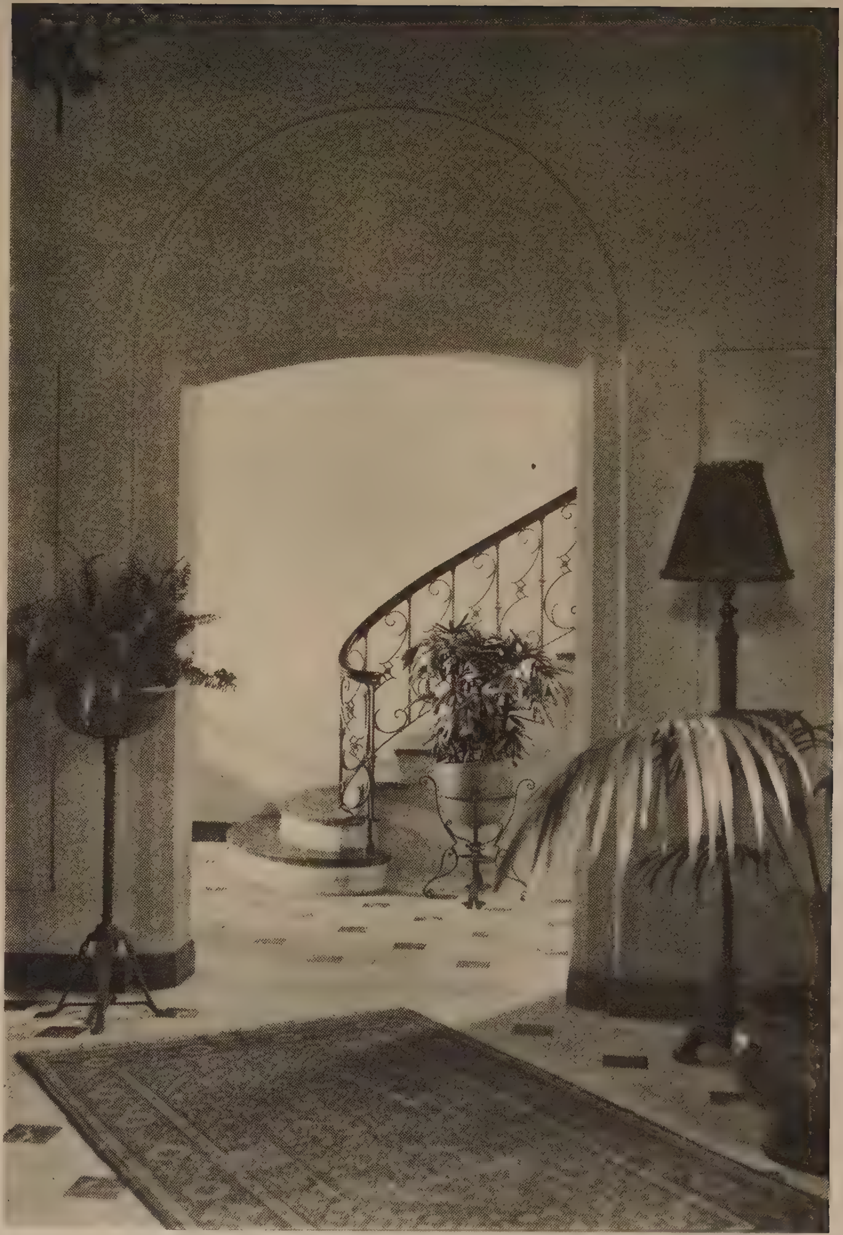
PLANS.

Moise H. Goldstein, Architect.

RESIDENCE, LEOPOLD FEIBLEMAN, NEW ORLEANS, LA.



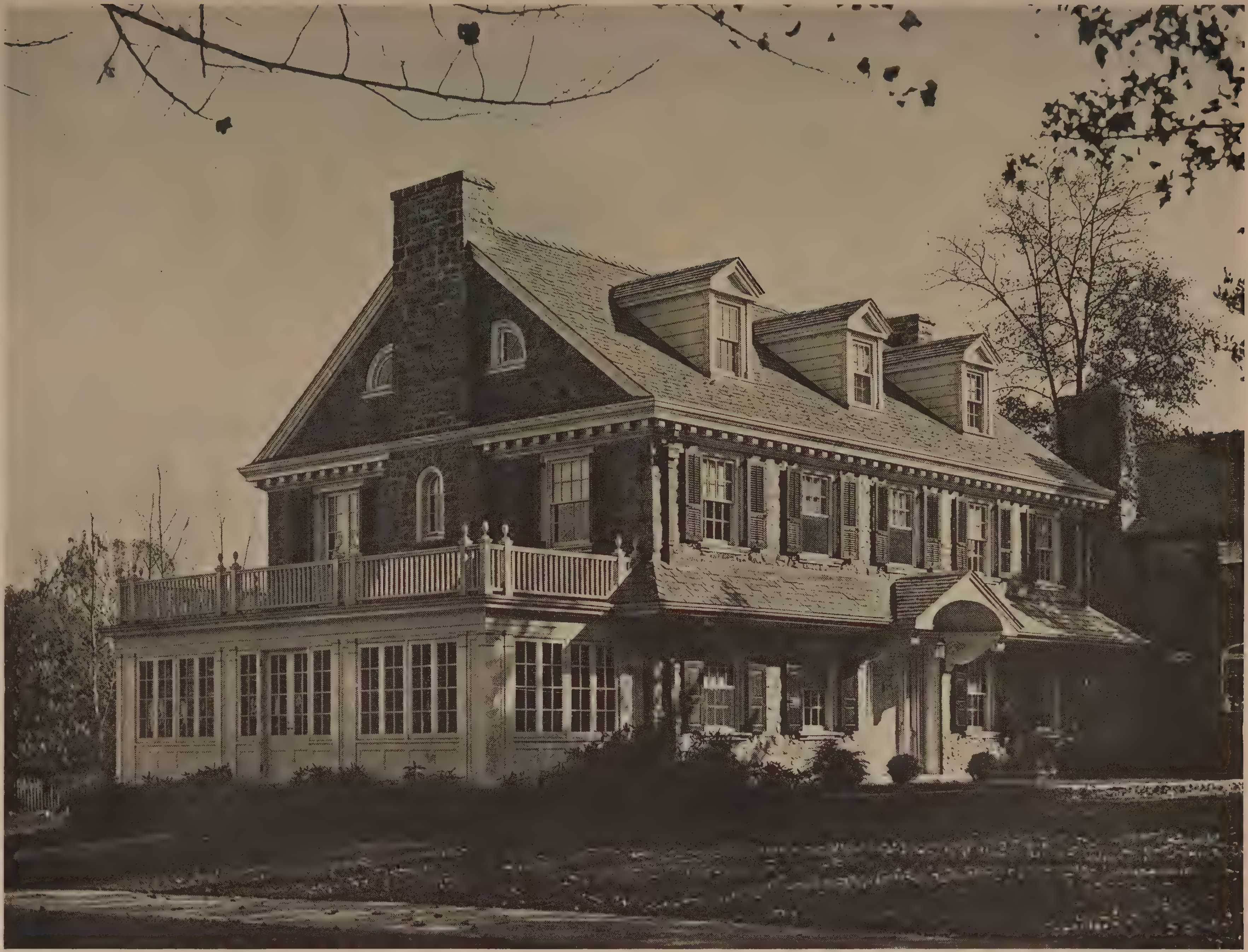
SITTING-ROOM (SECOND FLOOR).



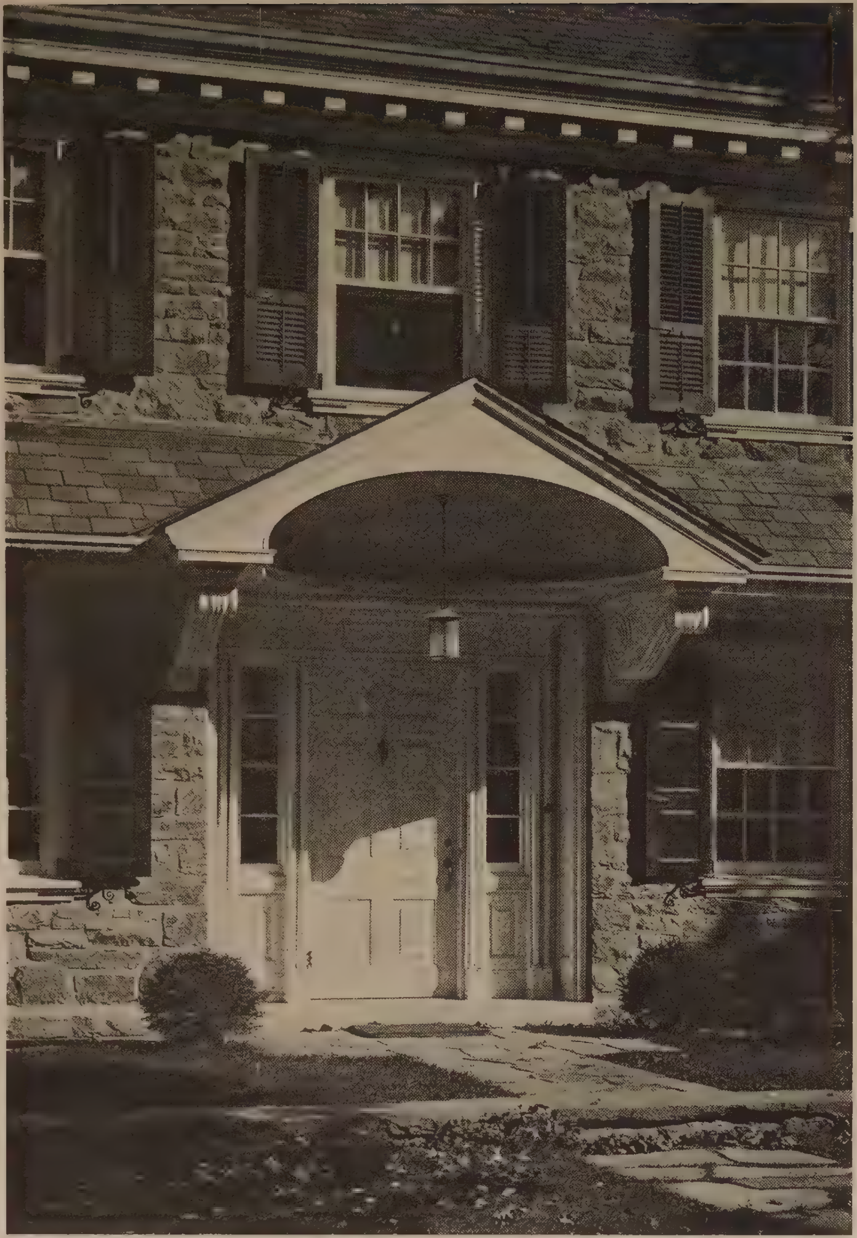
ENTRANCE-HALL AND STAIR-HALL.

Moise H. Goldstein, Architect.

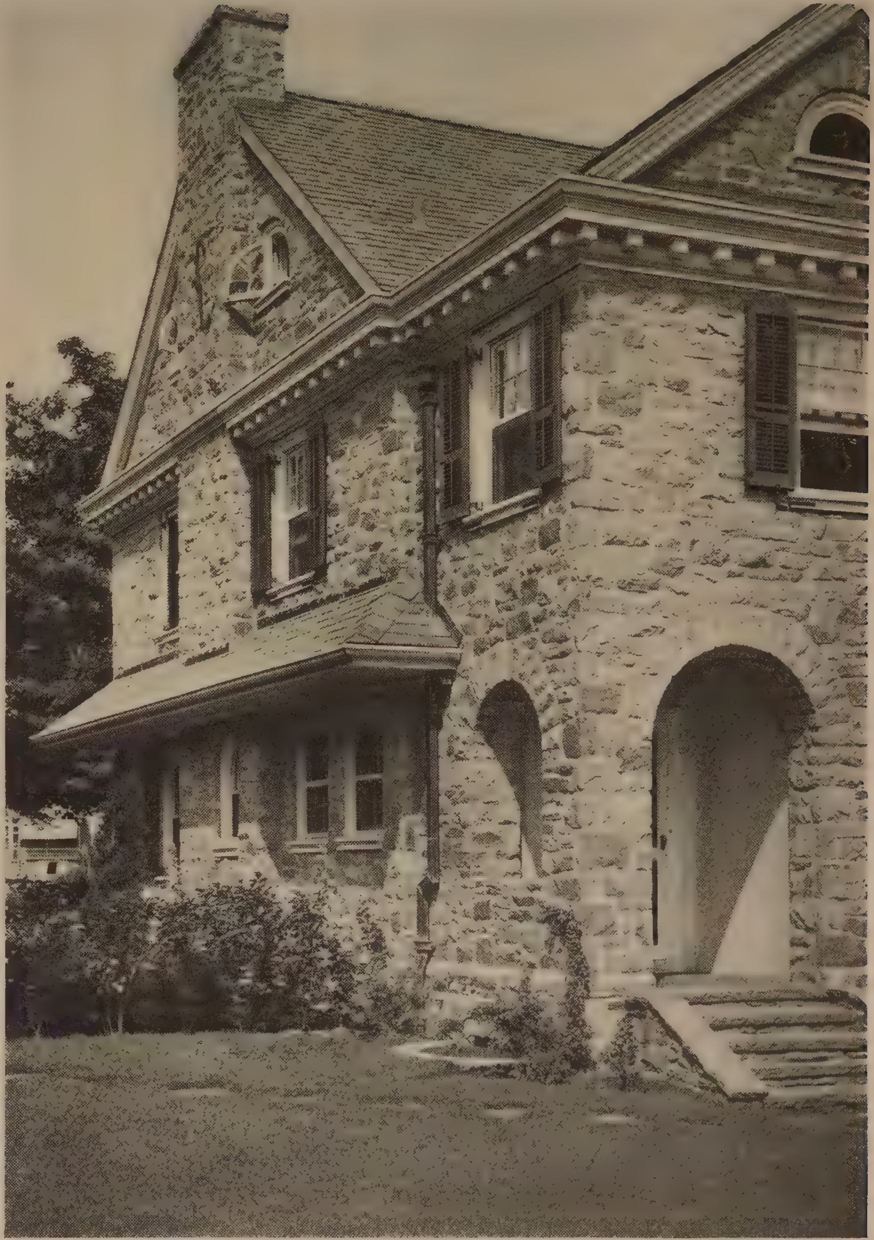
RESIDENCE, LEOPOLD FEIBLEMAN, NEW ORLEANS, LA.



RESIDENCE, GEORGE J. COSTELLO, PELHAM MANOR, N. Y. William Whitehill, Architect.



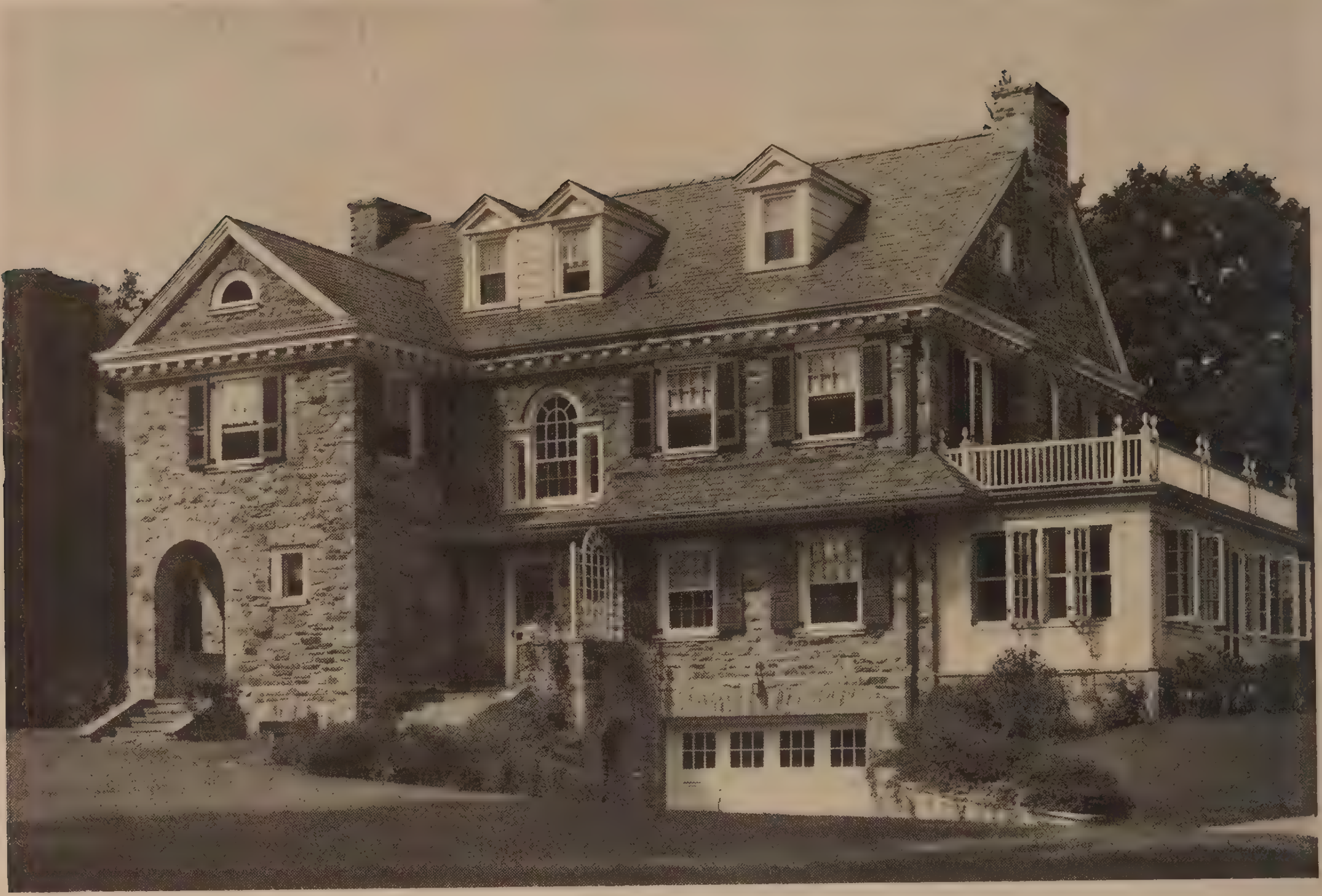
ENTRANCE DETAIL.



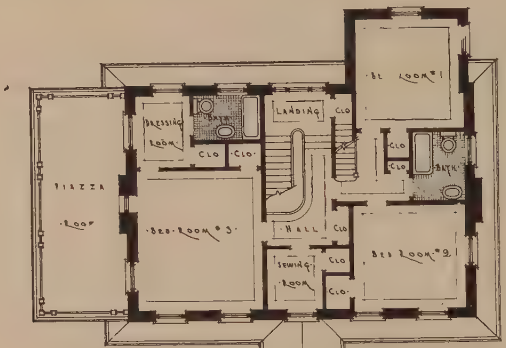
SIDE.

William Whitehill, Architect.

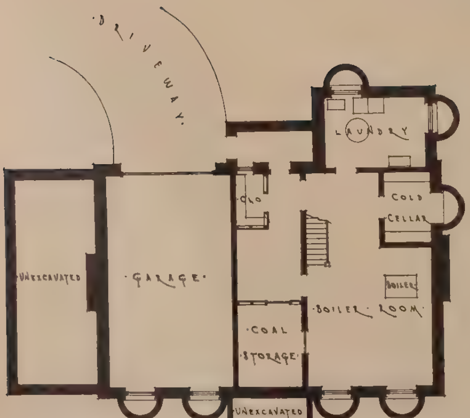
RESIDENCE, GEORGE J. COSTELLO, PELHAM MANOR, N. Y.



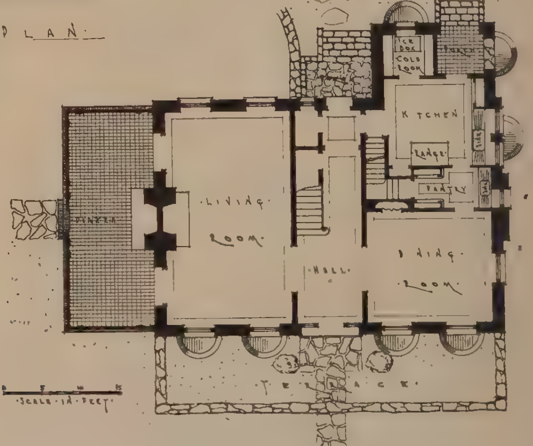
REAR OF HOUSE.



SECOND FLOOR PLAN



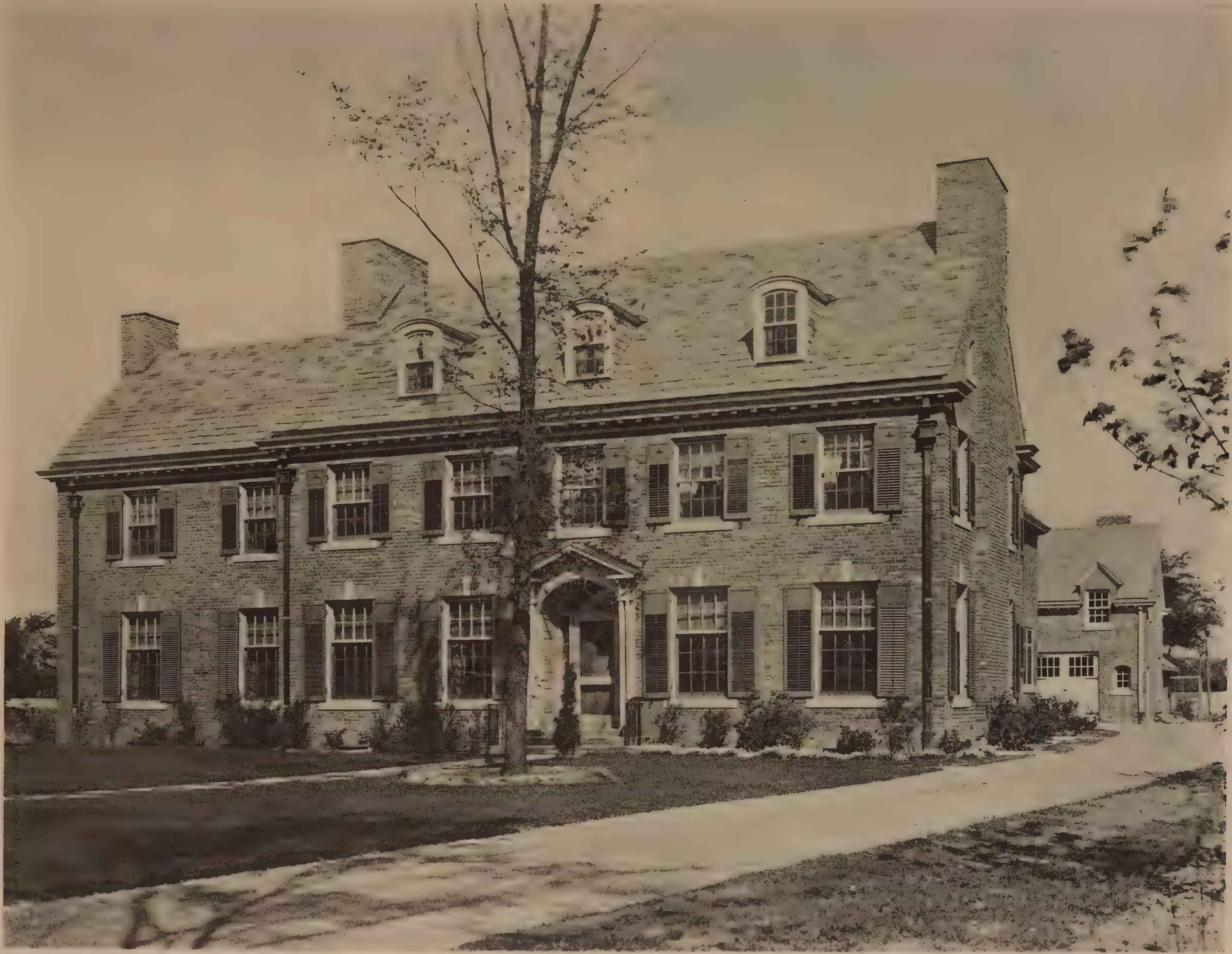
BASEMENT FLOOR PLAN



FIRST FLOOR PLAN

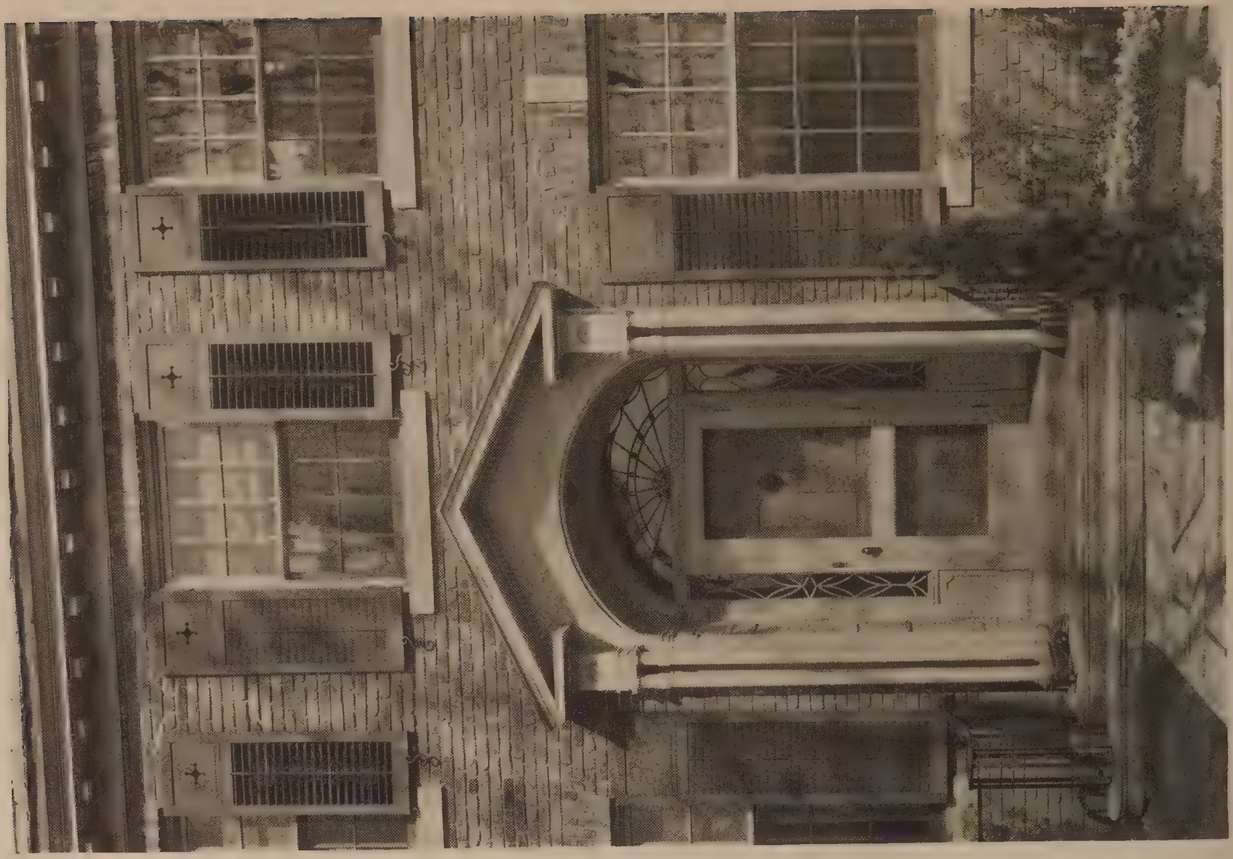
RESIDENCE, GEORGE J. COSTELLO, PELHAM MANOR, N. Y.

William Whitehill, Architect.

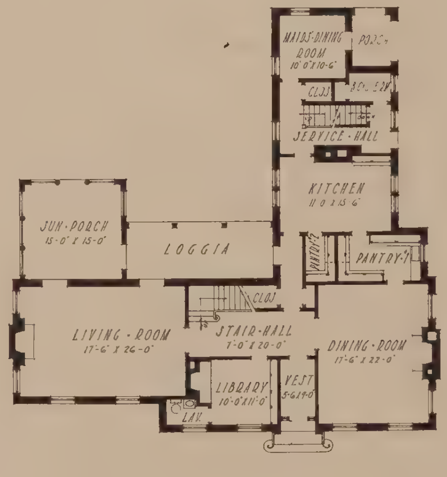


RESIDENCE, FREDERICK C. KIDNER, M.D., GROSSE POINTE FARMS, MICH.

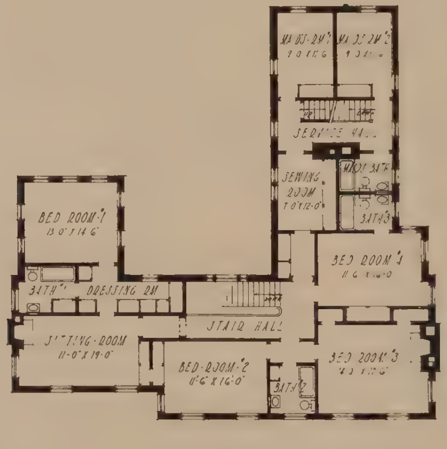
Robert O. Derrick, Architect.



ENTRANCE DETAIL.



FIRST·FLOOR·PLAN



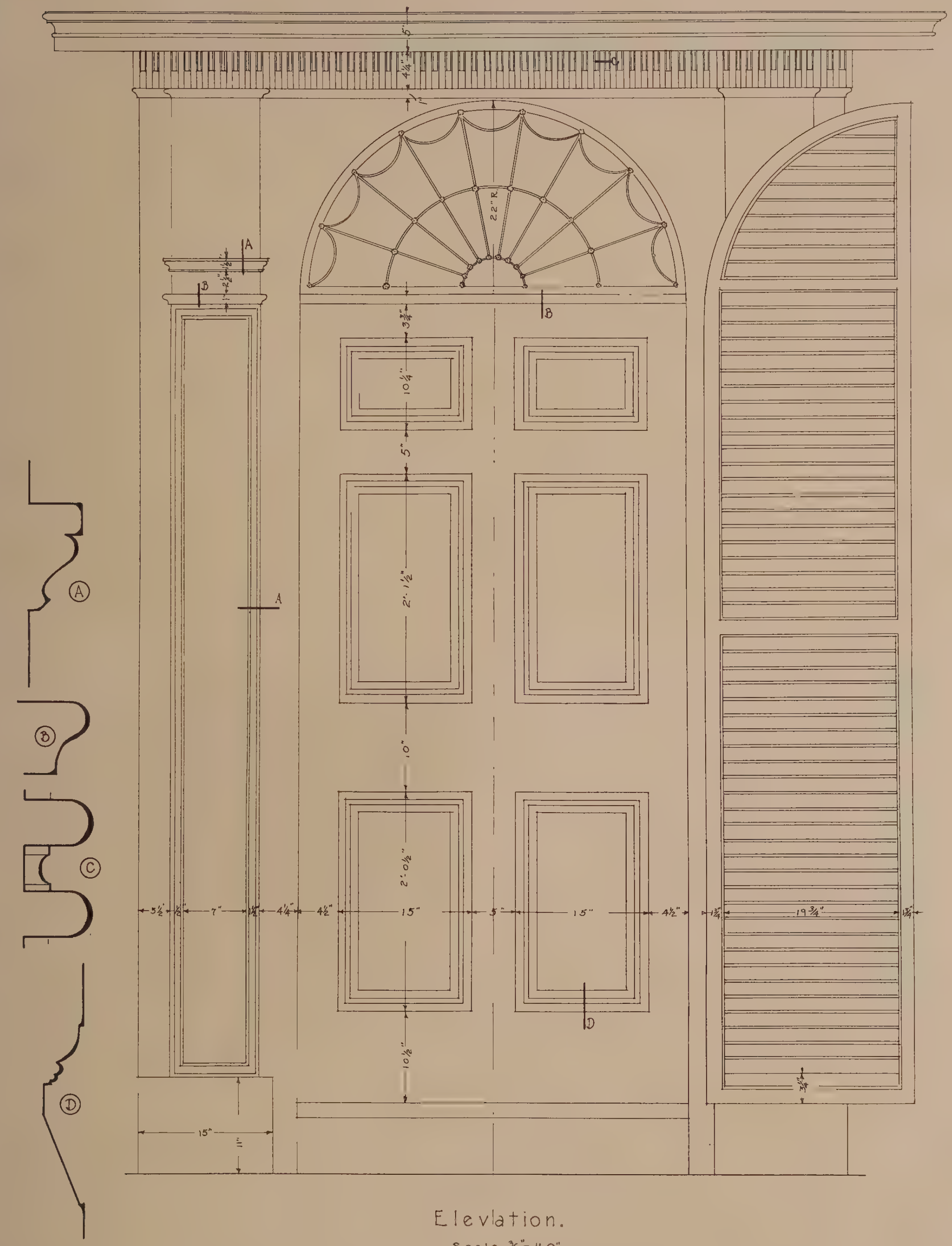
SECOND·FLOOR·PLAN

ROBERT·O·DERRICK
ARCHITECT
120 MADISON AVE DETROIT MICH

RESIDENCE·OF
FREDERICK C KIDNER MD
GROSSE POINTE FARMS MICH

RESIDENCE, FREDERICK C. KIDNER, M.D., GROSSE POINTE FARMS, MICH.

Robert O. Derrick, Architect.



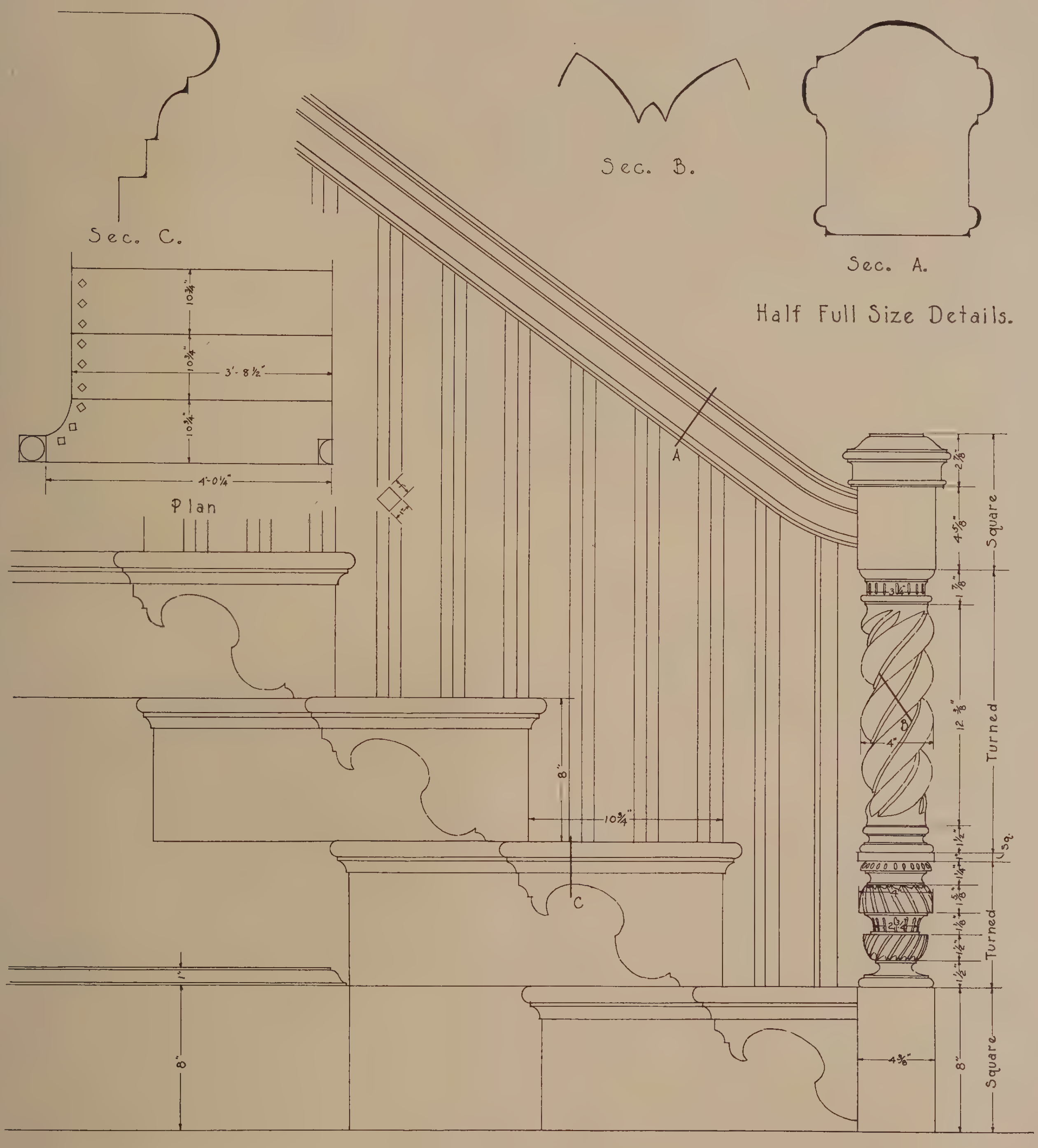
Elevation.

Scale ¾" = 1'-0"

Maine
Colonial
Series

DOORWAY OF THE BENJAMIN FIELD HOUSE
BUILT IN 1807. BELFAST, ME.

Measured and
Drawn by
A. J. Harriman II

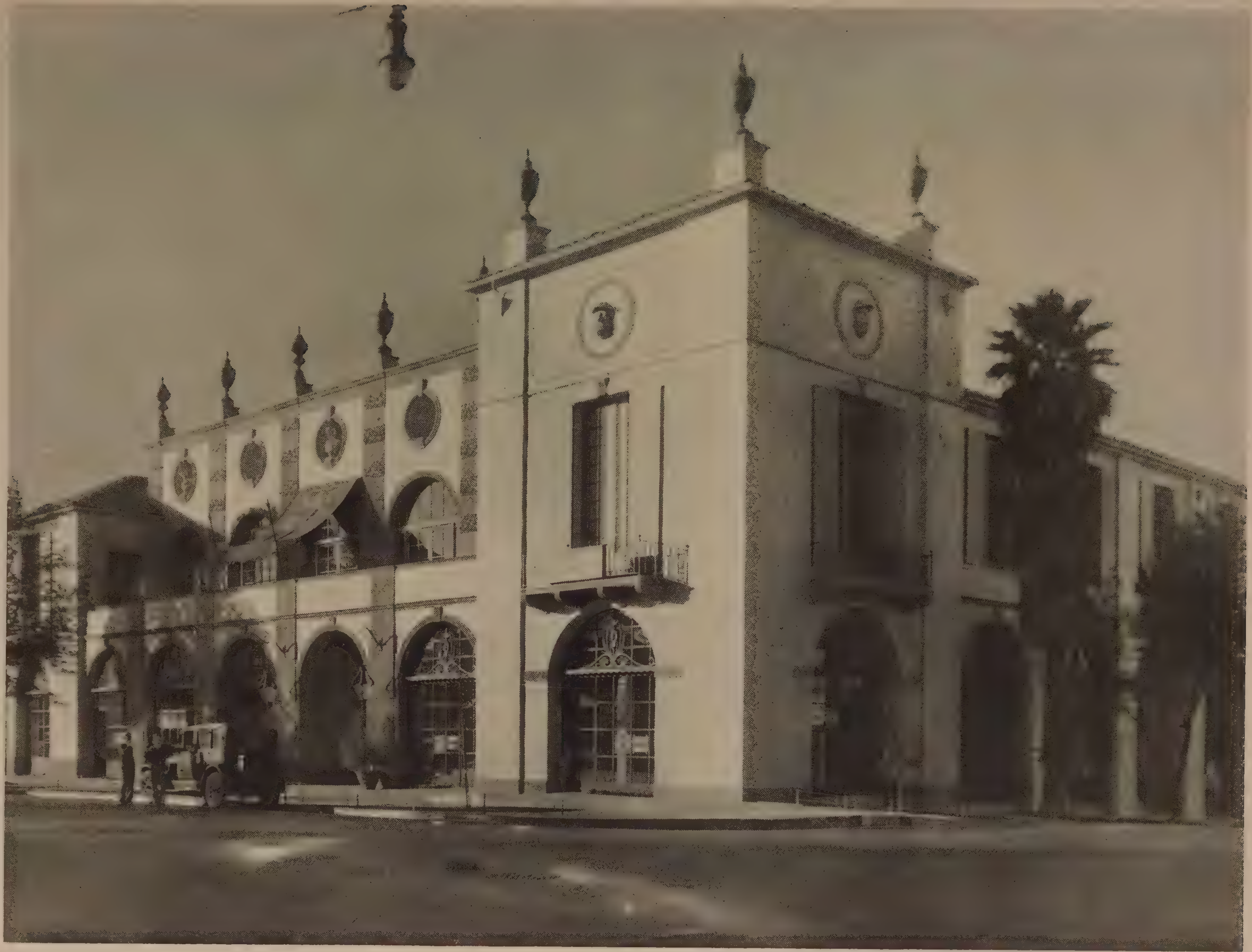


1½" Scale Elevation

Maine
Colonial
Series

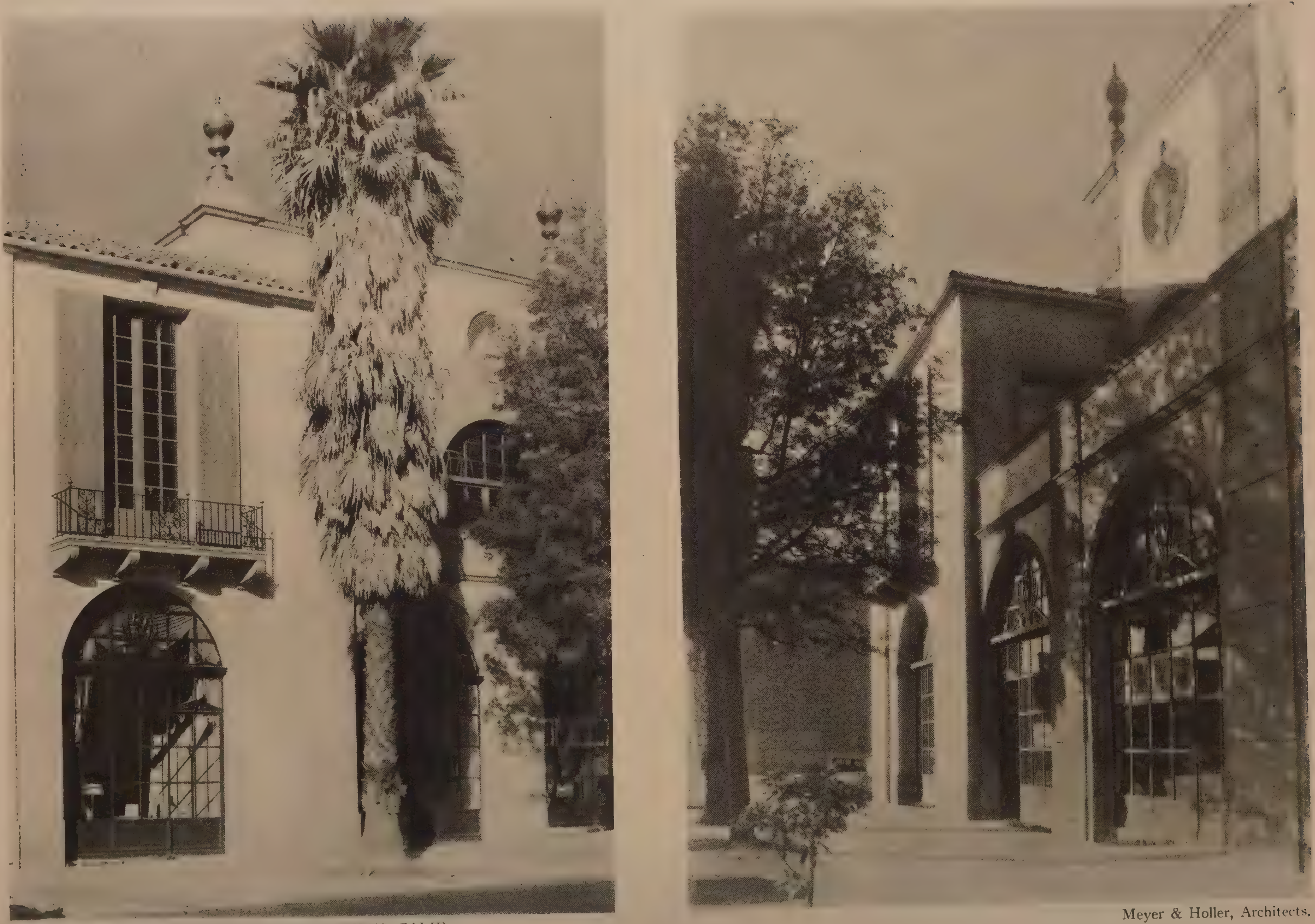
STAIRS OF THE GOVERNOR SMITH HOUSE
WISCASSET, ME.

Measured and
Drawn by
A. J. Harriman II



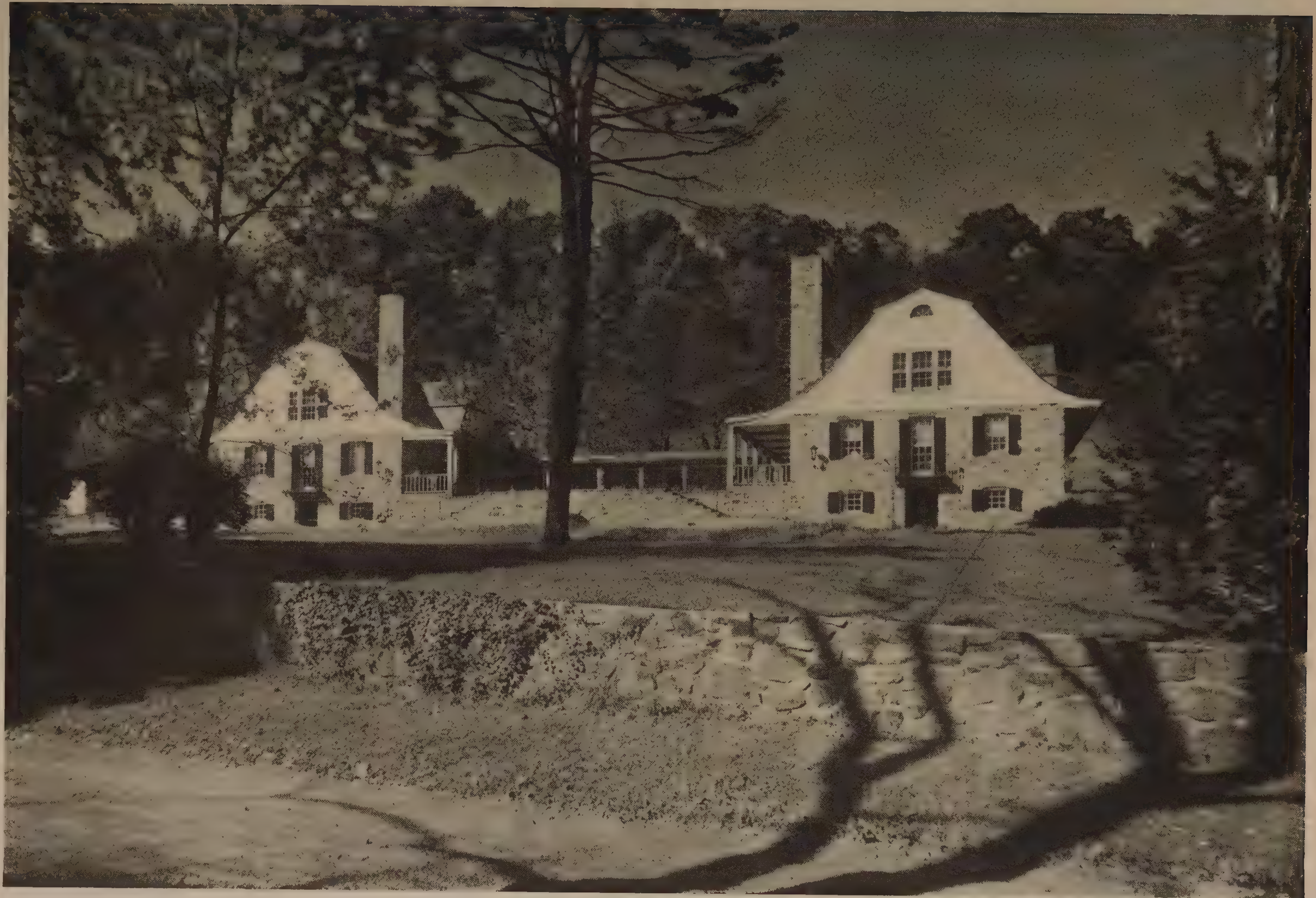
THE POST BUILDING, LOS ANGELES, CALIF.

Meyer & Holler, Architects.



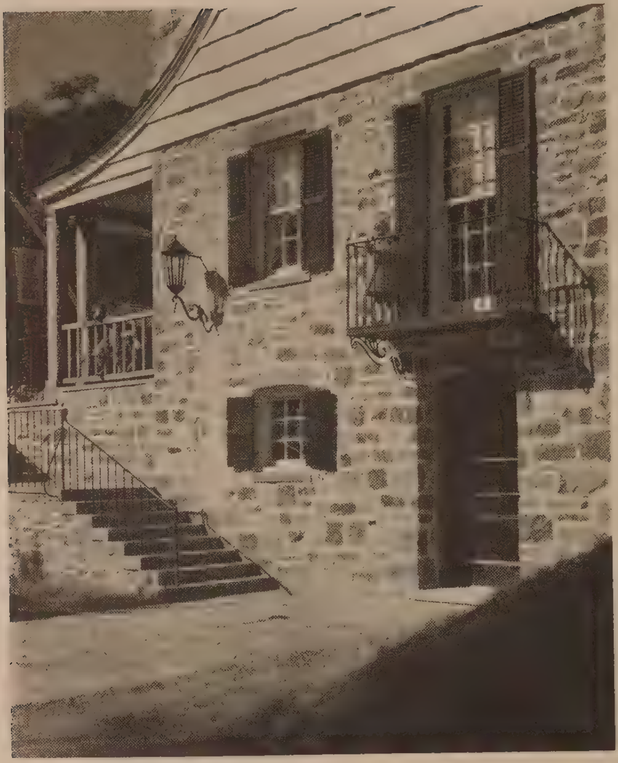
DETAILS, THE POST BUILDING, LOS ANGELES, CALIF.

Meyer & Holler, Architects.

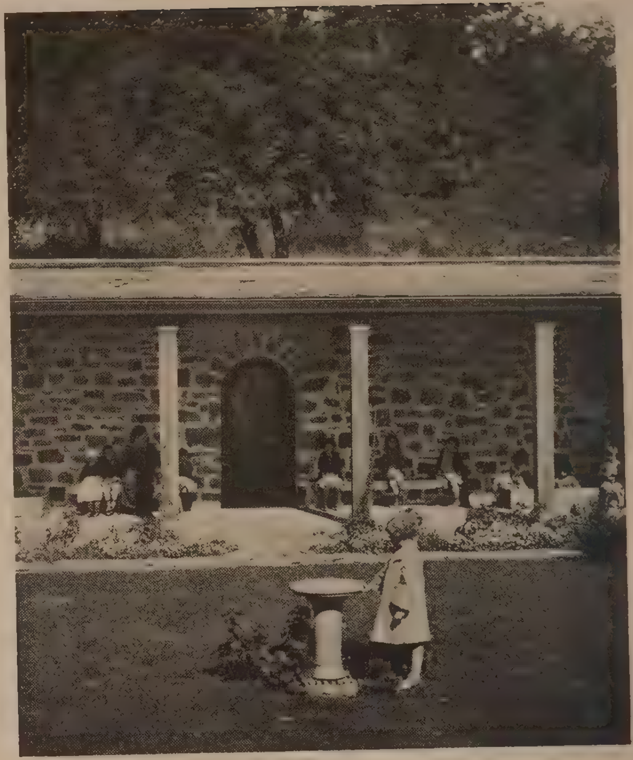


BUILDINGS FOR "THE CHRISTIAN HERALD" CHILDREN'S HOME, NYACK, N. Y. (EDWIN GOULD COTTAGES).

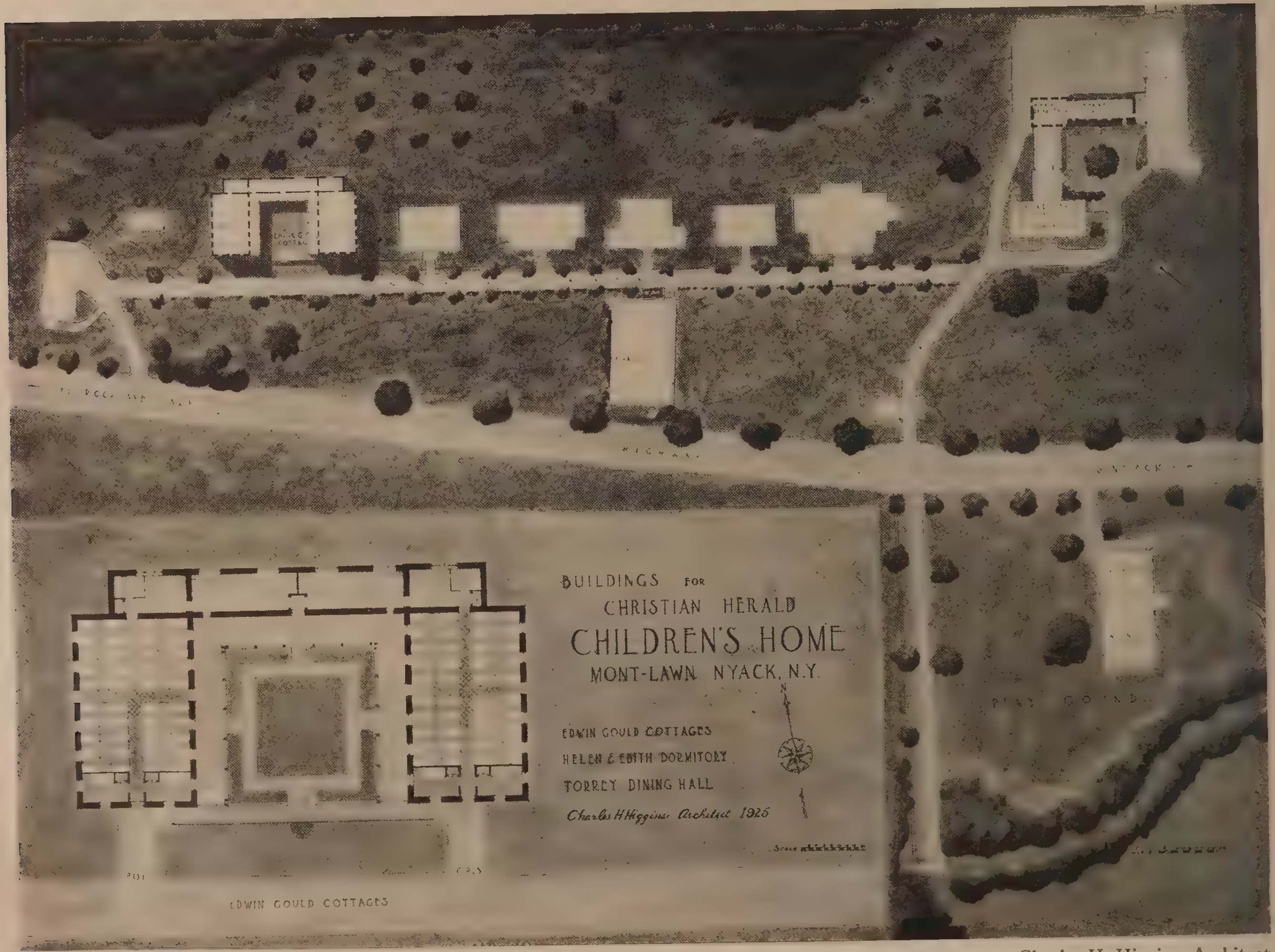
Charles H. Higgins, Architect.



DETAIL OF COTTAGE.

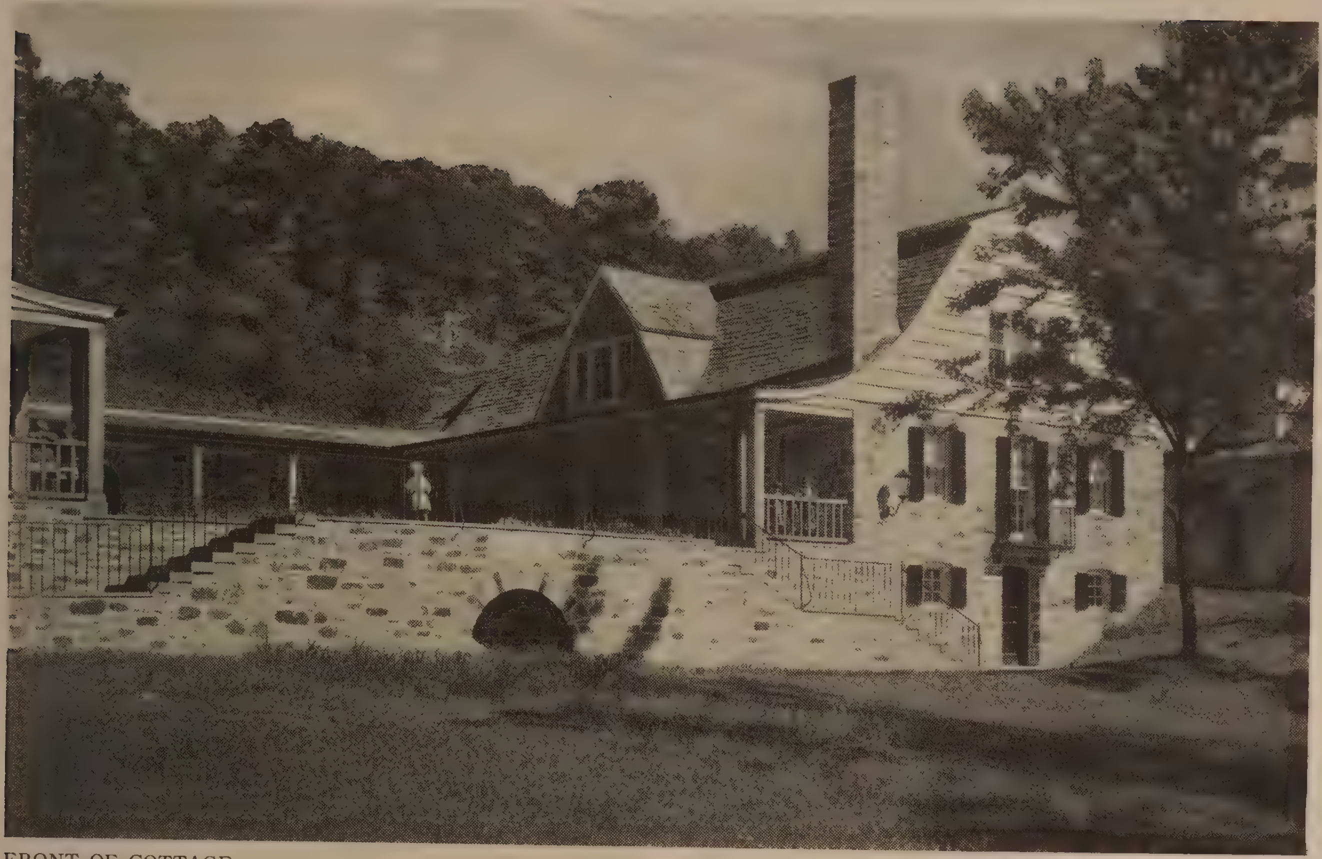


THE LOGGIA AND PLAY-COURT.

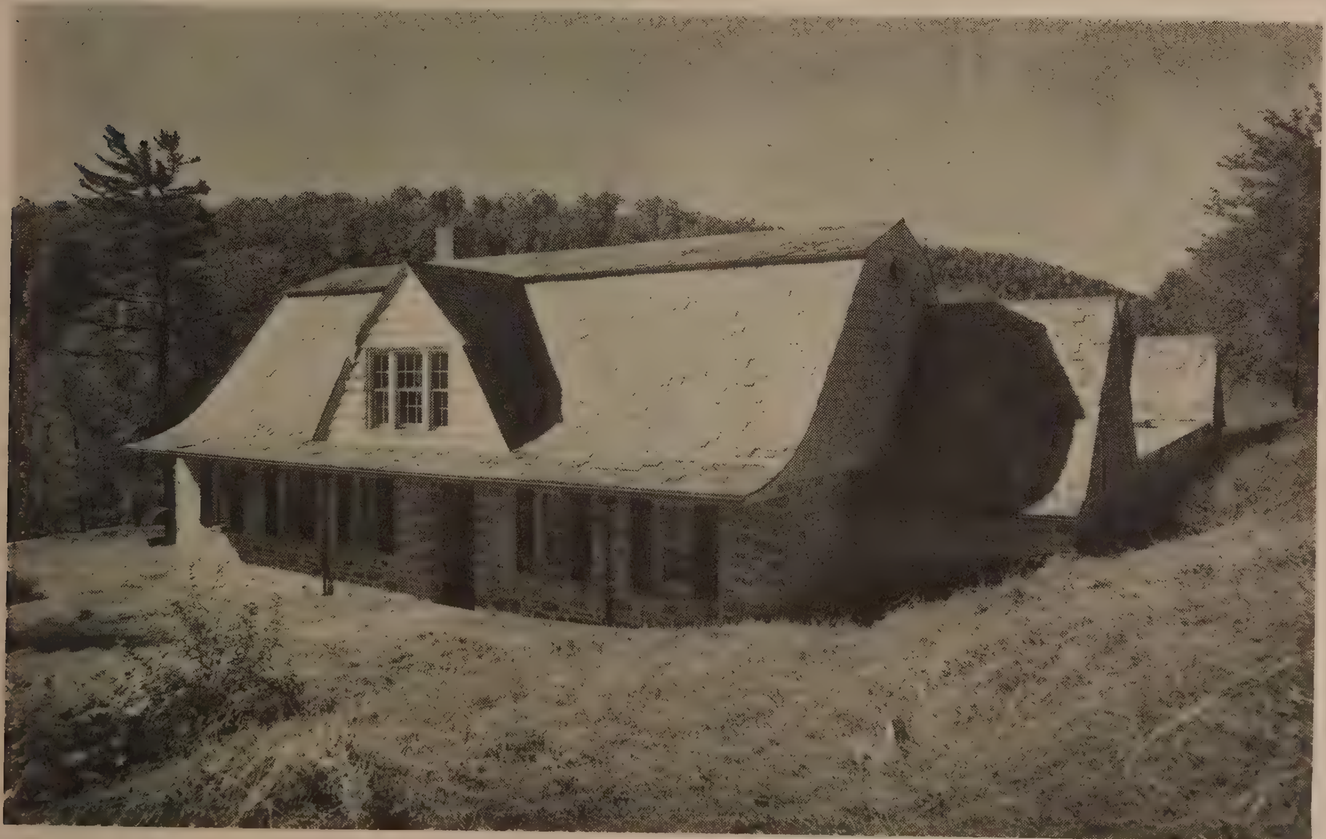


BUILDINGS FOR "THE CHRISTIAN HERALD" CHILDREN'S HOME, NYACK, N. Y. Charles H. Higgins, Architect.

(EDWIN GOULD COTTAGES.)



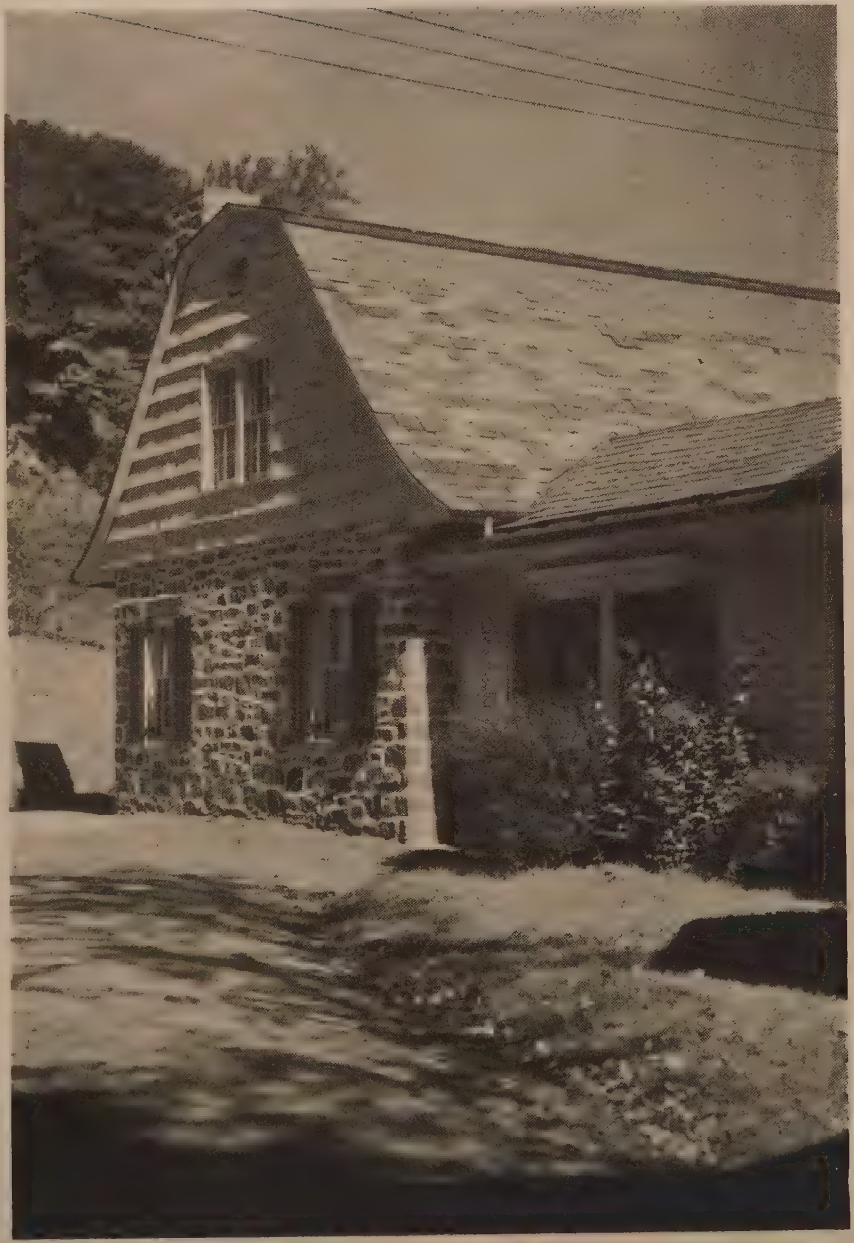
FRONT OF COTTAGE.



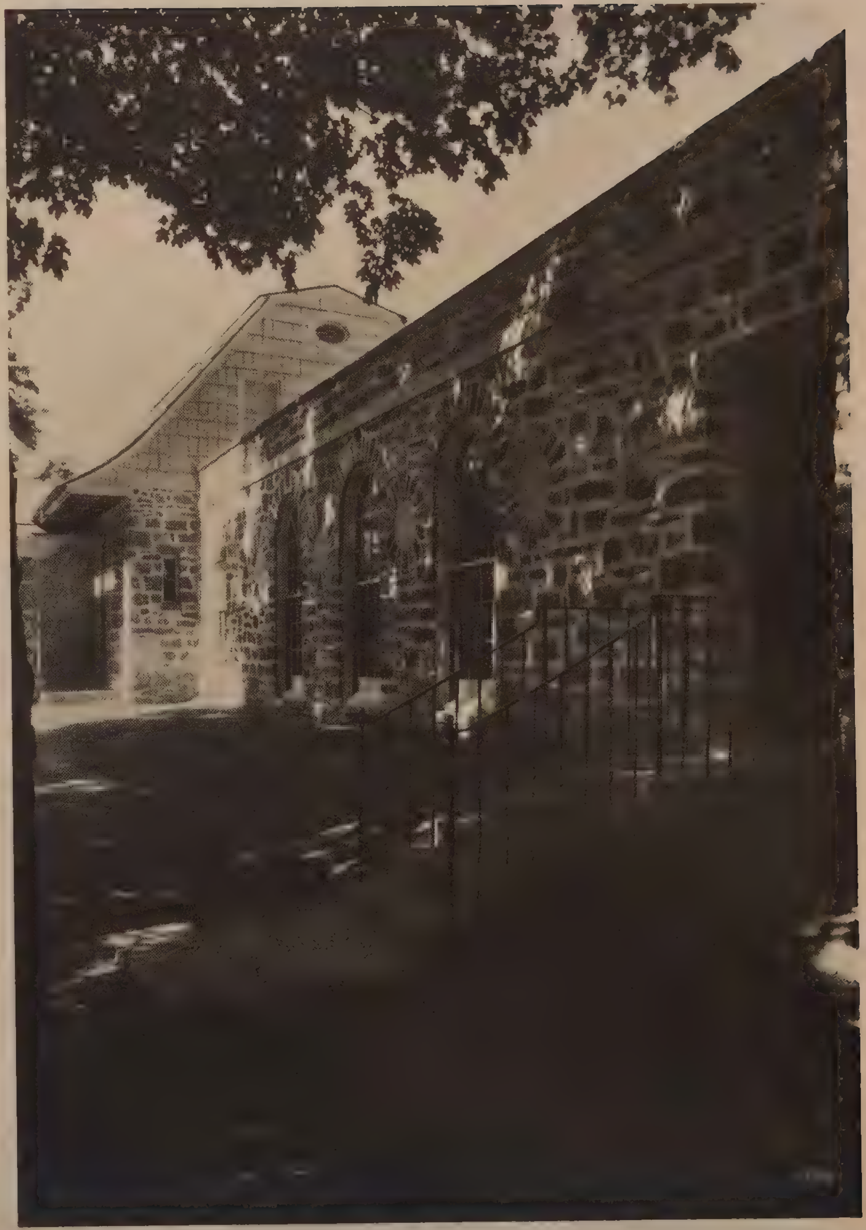
SIDE AND REAR OF COTTAGES.

Charles H. Higgins, Architect.

BUILDINGS FOR "THE CHRISTIAN HERALD" CHILDREN'S HOME, NYACK, N. Y.



DORMITORY, NEW DINING-HALL, AND KITCHEN (TORREY DINING-HALL).



Charles H. Higgins, Architect.

BUILDINGS FOR "THE CHRISTIAN HERALD" CHILDREN'S HOME, NYACK, N. Y.

"The Christian Herald" Children's Home, Nyack, N. Y.

Charles H. Higgins, Architect

A DORMITORY was needed at the Children's Home of *The Christian Herald*, at Nyack, so that the stay of the children in the country might be extended from ten days to two weeks without reduction in the total of over 2,500 given life in the country each summer.

The children are divided equally between boys and girls, which means two parts to the dormitory. A little bed, 2 feet by 5 feet, is the unit. Forty is just the number of children two workers can properly care for, and two workers is the minimum, as one must be on duty when the other is off, for sleep or other reason. This is necessary for economy, as the workers are one of the large items of expense in keeping the children in the country. So the architect was called upon to design two houses—each with forty little beds, a bedroom for each of the four workers, and a wash-room for each house, a locker-room for the children's clothes, and a porch for wet days.

And thus the plan grew from the little bed, represented by a white rectangle on the plan.

Each of these dormitory rooms for forty children, with the bedrooms for the workers, and the wash-room, became a house, separated by the playground in the form of a garden surrounded by a cloister. Each of these dormitory rooms is divided by aisles in the form of a Latin cross into four corners, with ten beds in each corner. This is worth looking at on the plan, where it will be seen the short arm of the cross is the aisle connecting the front and back entrance, while the long arm of the cross, lengthwise of the room, connects the workers' rooms at the southerly end with a wash-room to the north. Joining the wash-room in each case is the locker-room. In composing these requirements, it seemed best to develop the playground surrounded on three sides by a cloister as the principal feature. This seems logical, as recreation out of doors is the central purpose. The garden with its cloister is left open on the southerly side to the sun and the southerly breezes, while it is protected to the north by the locker-room, and on sides by the two houses.

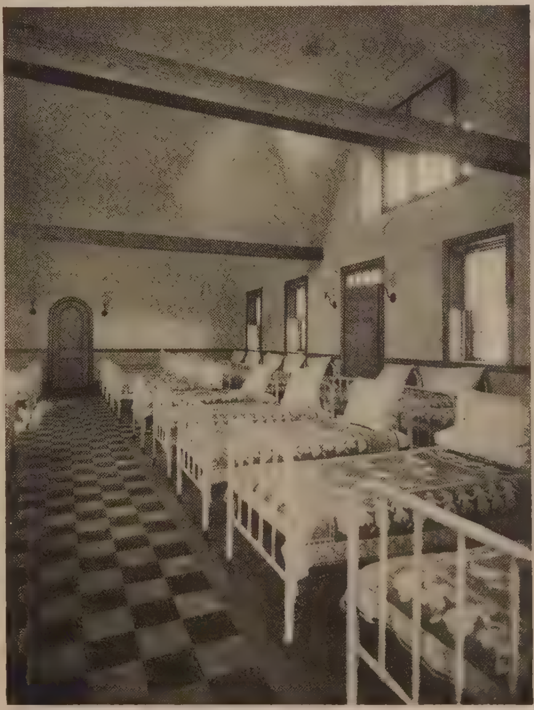
In the photographs it may be seen how much the architect was influenced by the early Colonial architecture of the neighboring valleys, an architecture so distinctive as to be generally known as Dutch Colonial, although many of the examples which remain were built after Colonial days ceased and this country became a nation, and such houses were built by Americans of a century standing, although descendants of people who came from Holland.

For the walls of these houses local stone, taken from pits in the hillside immediately back of the site, was used, full advantage being taken of the variegated shades and warm tones found on many of the faces. This use of stone, which could simply be pulled down the hillside, was an economy characteristic of the simple means used throughout. The masons who placed this stone were also from the locality, and took great interest in their craftsmanship. This use of local material and workmen was carried so far as might be. The oak beams and columns were cut from the hills near by, and the flagstones taken from the old bluestone quarries not far north on the Hudson.

Looking over the plan and photographs, the care used in adapting the construction to the topography is everywhere to be seen. The site is on a hillside sloping to the south, while behind rises the steep, rocky, wooded hill affording shelter from the northerly winds.

This sloping hillside results in the garden and main portion of the building being somewhat more than the height of a man above the terrace known as Sunshine Avenue, which is indicated on the plan, and connects most of the buildings of the Children's Home. This height was used not only to give a room for the furnace to heat each house, but for two rooms with southerly exposure, one of which, in each house, is a comfort station, and the other a workshop for repairs and the keeping of tools used on the ground. Brush fires are common on these hills, and the roofs are covered with slates which are graduated in size and variegated in warm, natural tones. The ventilation of the dormitories is of the best through the rooms extending up into the roof, lighted and ventilated by dormer windows as well as by windows in the southerly end. This may be seen in the interior, where the great oak beams form the ties of the roof, also serving to tie together the composition of the interior.

The understanding of children is evidenced in many



One of the cottage dormitories.

ways; for example, in the centre of each dormitory there is, in the floor, a sheet of ground glass about eighteen inches in diameter, beneath which there is an electric light. This dimmed floor light is on all night, mellowing the darkness which is a source of terror to some children, and making feasible the attendant moving to the wakeful child, without having a light which would shine in the eyes of those sleeping.

The appeal to the interest of children is recalled again and again in the buildings themselves; perhaps the touch most appreciated are the tiles of Royal Delft Cloisonné, set in the masonry, and scattered from one end of the Cloister to the other, at or below the height of the little ones' faces. These tile bear different images of animals, birds, and flowers. At one entrance is a preening peacock; at the opposite a bounding tiger; and between, all manner of fish, birds, and beasts, all of inspiring design and coloring.

Torrey dining-hall.

The wrought-iron lamps on the exterior above the space forming the approach are the work of Samuel Yellin, and are particularly worthy of note.

The construction of these dormitories, given by Mr. Edwin Gould, and known as the Edwin Gould Cottages, opened the doors of *The Christian Herald* Children's Home to a broadening of its work to include the spring and autumn months, for which the earlier buildings, not provided with heat, were inadequate. To carry on this work required a dining hall, which could be heated, and the original house, known as The Homestead, was provided with equipment for heating with steam, and a new kitchen with dormitory above, and dining hall, were constructed. The first of these is known as the Helen and Edith Dormitory, while the latter is known as the Torrey Memorial Dining Hall. Again, looking at the plan, it will be seen how these buildings were arranged to form a quadrangle with the Homestead on the west, and Fort Plenty—the summer dining-room—on the east; this quadrangle, opening in a southwesterly direction and looking toward the broad expanse of the Hudson River, two miles away and several hundred feet below. This dining-room is used by the children in spring and autumn, but in the summer time, when the number of children increases to 300, it is used by the workers, while the children are fed in the very open summer dining-room.

To connect these buildings as was desirable for operation, without increasing the hazard from fire, the dining-room was made of masonry, including the roof. Here again, in the walls, is the stone from the hillside, and results in surroundings, appropriate to the atmosphere maintained, at this Home for Children, where will be found a simple, happy, and at the same time, frugal life in the country.

The architect says: "I looked upon a home of children, happy and romantic on the surface, wholesome and sound at the core. This I found was carried on, industriously and frugally, season after season, under the able administration of Miss Goering, the superintendent. The children ever-changing, the spirit of the place unchanging. That spirit I was privileged to record in simple forms and durable materials, while adding buildings necessary for increasing and extending the means for the good work."

The Fifty-Ninth Convention of the American Institute of Architects,

May 5 to 7, 1926

Fellow Members of the American Institute of Architects:

Attention of our members, and all other architects, is called to the next annual meeting. The fifty-ninth convention will occur in Washington, D. C., in the fine new building of the Chamber of Commerce, on Lafayette Square. Note May 5–7 on your calendar.

The programme, which will be sent to members (and to other architects who request it), will include certain features of entertainment. Notable men will address the convention, and the delegates will have opportunities for discussion of subjects upon which there are divergent opinions. Although the Board of Directors is working hard to dispose of routine business which would be a bore in assembly, there will be questions for consideration and decision of the convention.

Chapters should be warned that there is possibility of some new policies being inaugurated and of some old ones being modified. The delegates who are coming (and as many members as possible who are not voting delegates) should know their chapters' mind and be ready to discuss "The Small House Service Bureau," "The Scientific Research Department," "The Structural Service," "State Registration and Architectural Education," "Significance of the Fine Arts," "Architecture and the Public," "The Proposed Development of the Octagon Property," "The Plan of Washington," and "The Proposed National Department of Public Works." The convention will consider also the raising of dues, etc., and the election of new officers and other directors.

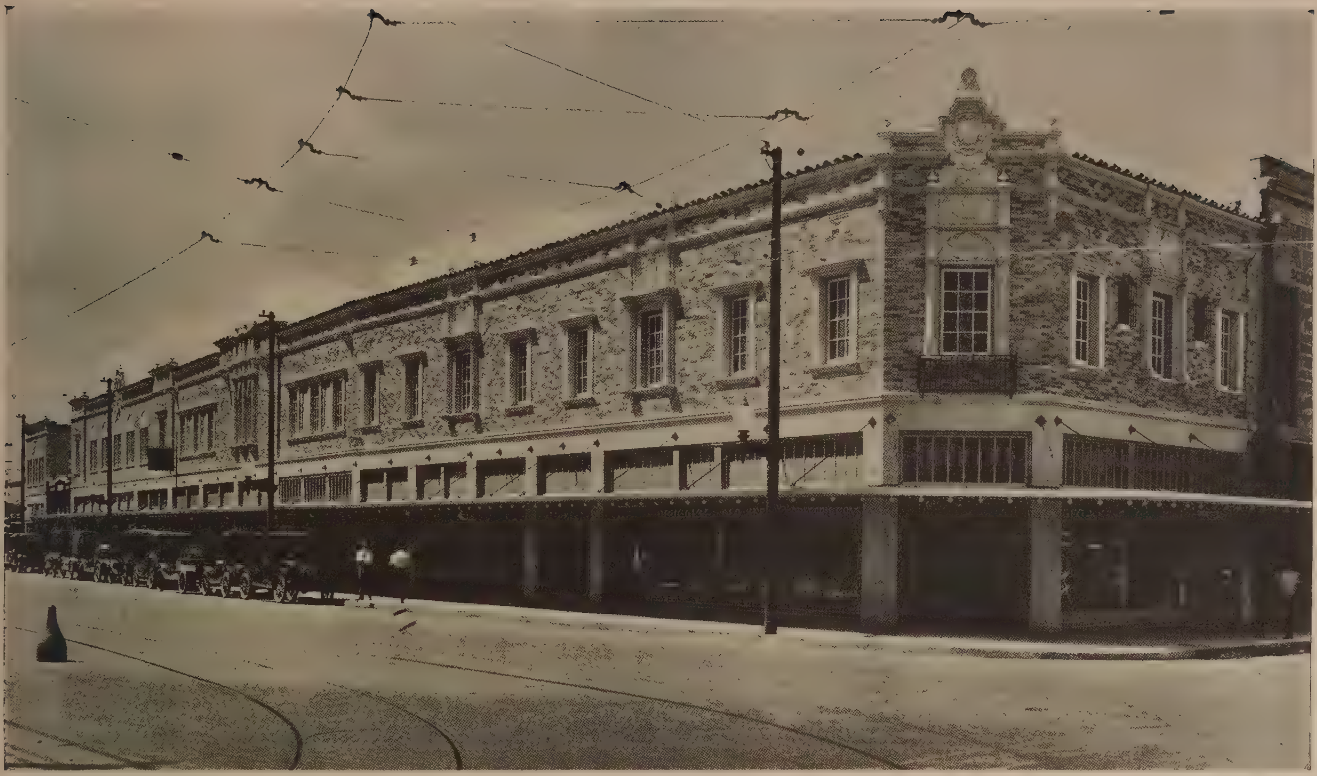
Young architects and draftsmen are particularly invited. Members are urged to make it a vacation week, bring their wives, and also to invite all architects, whether members or not, to attend all sessions of the convention.

The Washington Hotel will be official headquarters. Reservations there or elsewhere should be made as early as possible. Try to remain over Saturday of convention week. That, thanks to the Convention Committee, may be the best day of all.

Faithfully yours,

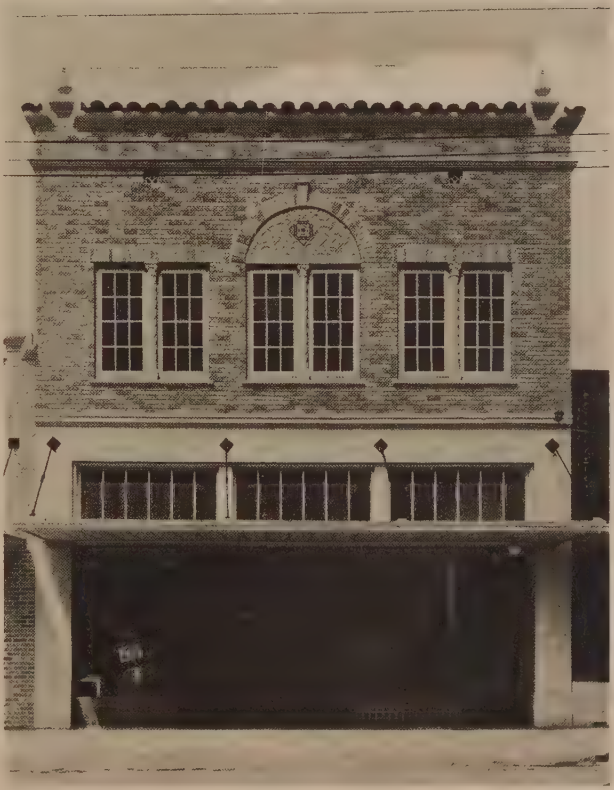
D. Everett Waid,

President.



A Block of Stores in San Antonio, Texas

Harvey P. Smith, Architect



SAN ANTONIO is widening her streets, and as a result property-owners are doing more than just remodelling their building fronts.

At least one enterprising citizen has made the most of his opportunity, and has given the city a unique architectural asset by constructing a new building rather than following the plan of most property-owners in merely remodelling buildings for a broader street.

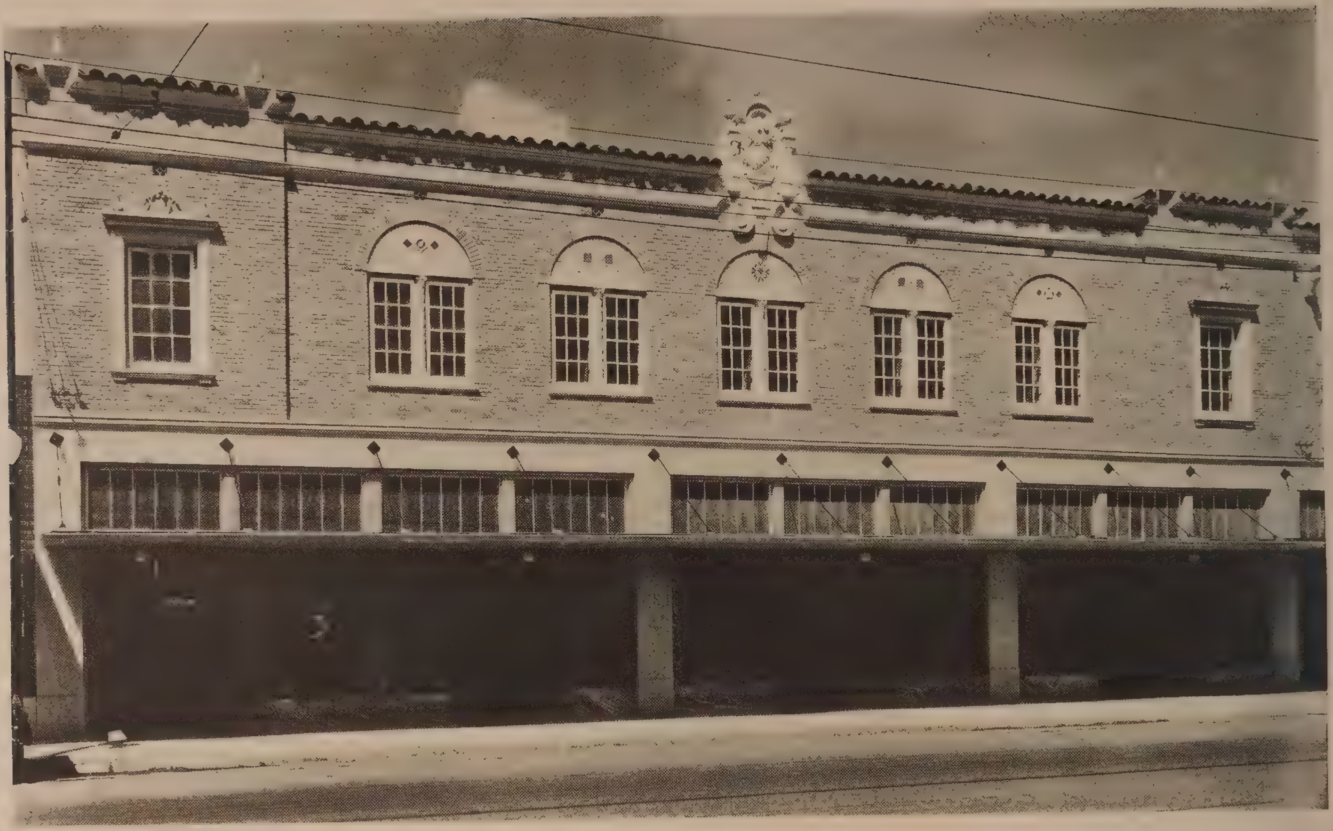
On the west side of South Flores Street, between Dolorosa and Nueva Streets, N. Kallison has built a group of store buildings which stand out pre-eminent in their class, and yet blend naturally into the environment, atmosphere, traditions, and history of that particular part of the city where its early development first began.

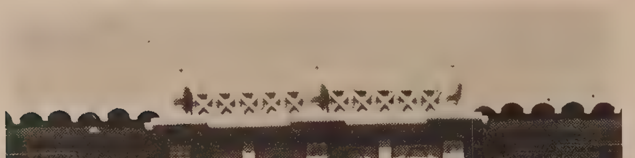
The buildings are all designed in the Spanish style, and apparently might have been transplanted bodily from old Mexico or Spain, except for the modernization of the store fronts and interiors. This block was built in four units, and is two stories and basement in height. All of the stores are modern and complete in every detail, with plate-glass fronts set over marble or blue tile bulkheads.

The show-window backs are of glass cut into small panes, which not only make a nice display background, but give abundant light in the store. Each store has its individual basement, accessible by its own stairway and well-lighted by sidewalk lights. An awning runs the entire length of both sides of the block.

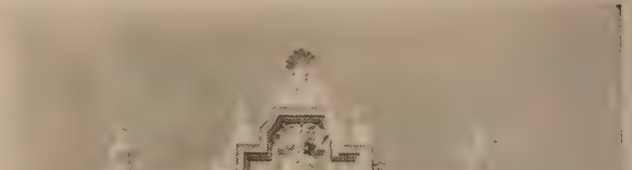
The entire second floor is divided into a 55-room hotel, equipped with plumbing in every room and with bath easily accessible, and has complete electric fixtures and outlets. A spacious lobby, three-room apartment for the owner, and other conveniences are features. The woodwork is in ivory enamel, with delicately tinted walls and ceilings, doors are in a dark antique mahogany, and floors are all polished. Metal doors with fusable links provide fire-protection for the individual units.

The main façade is unusually pleasing, both in its color





Detail.

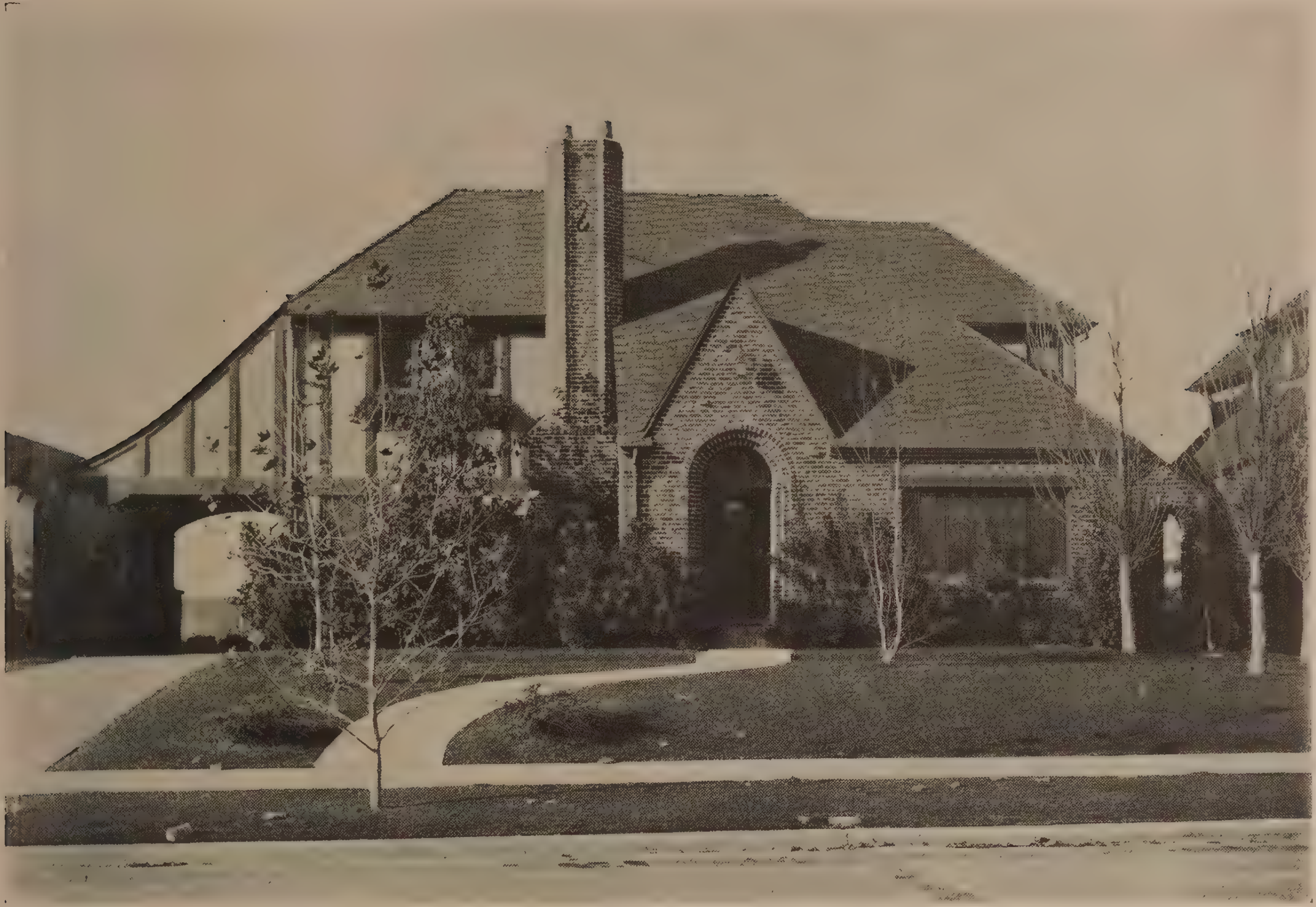


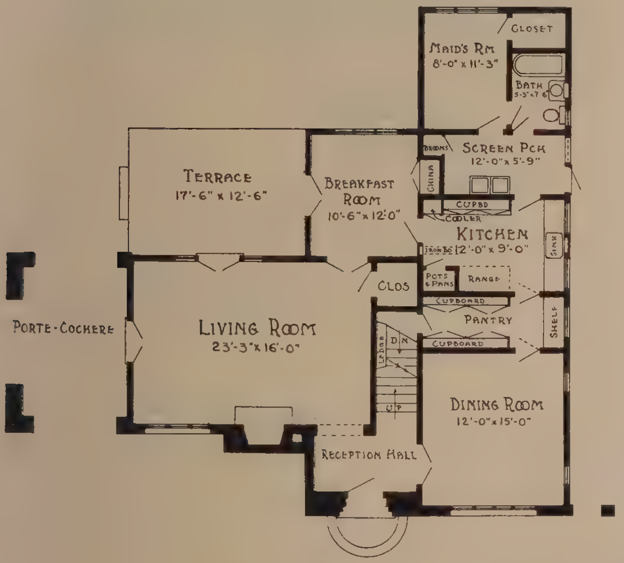
Detail.

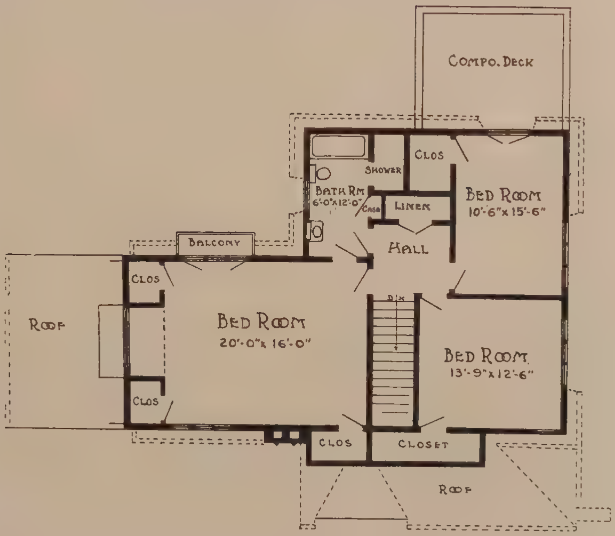
Harvey P. Smith, Architect.

BLOCK OF STORES IN SAN ANTONIO, TEXAS

combination and texture of materials. Ornamental stone of a light cream-color brings out all of the main features, and the brick is rough-textured in light cream with raked mortar joints. A roofing-tile coping in Mediterranean colors forms an edge with irregular projections. Delicate blue tile are placed as an architrave around some of the feature windows. Wrought-iron balconies and window-guards add a touch of old Spain to the principal corner.



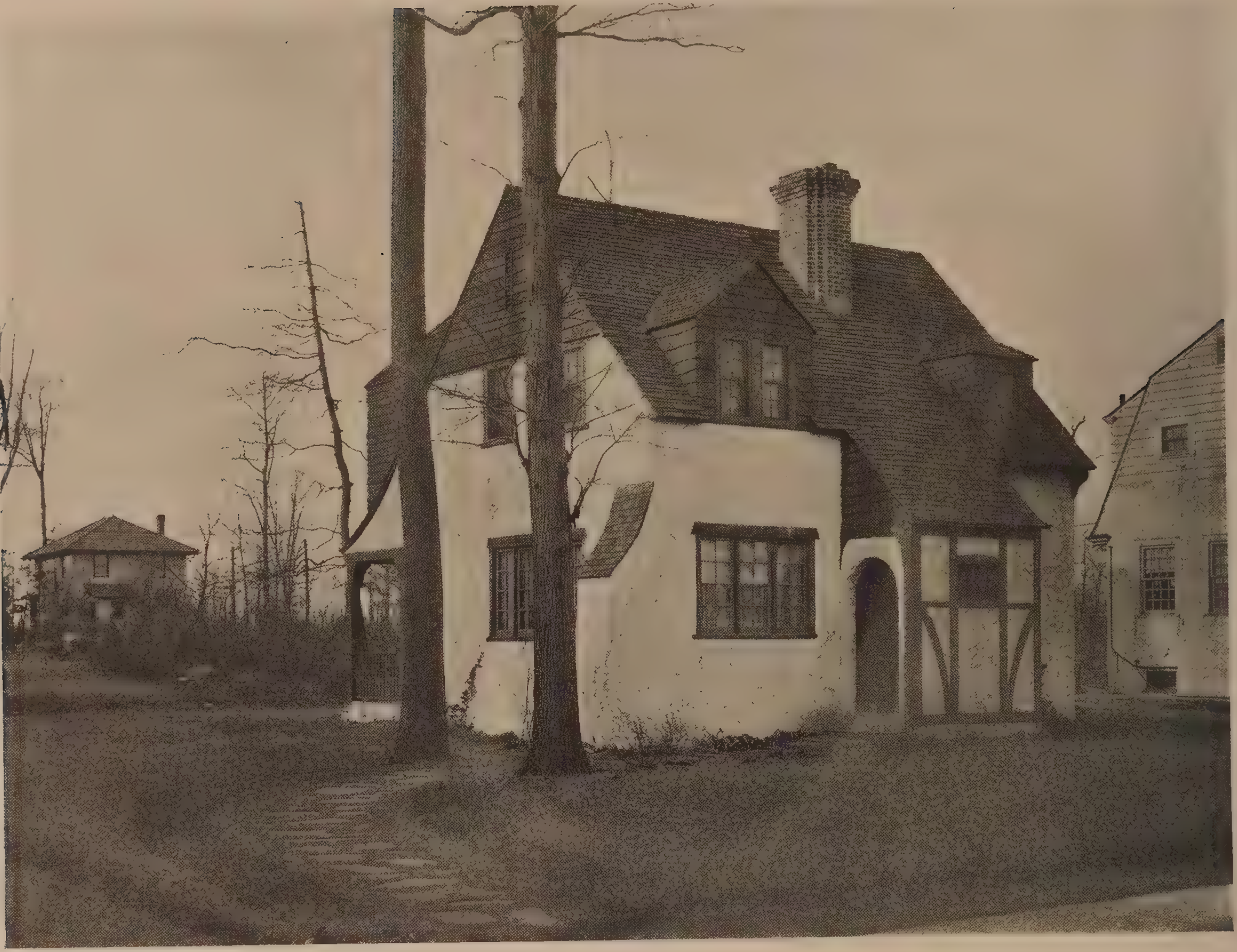


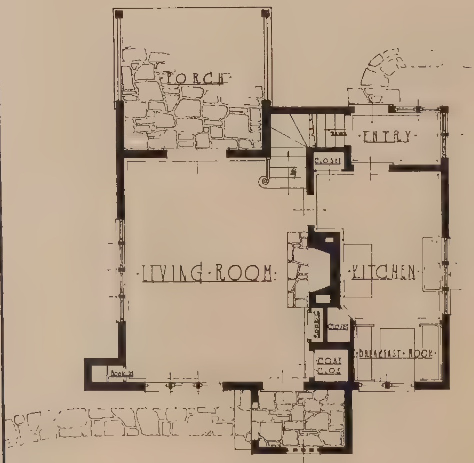


This English-style house is of frame construction, with its outside walls, for the most part, finished in deep tan cement-stucco. Brick of dark red and brown colors, however, is used as a veneer about the entrance and for a considerable part of the remaining front walls, and also for the construction of the chimney. The wood trimming is in dark brown, and the shingled roof is stained a weathered shade of brown. Concrete is used for the foundation.

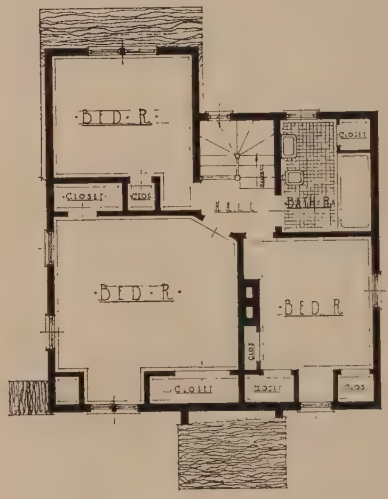
RESIDENCE, GEORGE RATTENBURY, LOS ANGELES, CALIF.

R. J. Kieffer, Architect.





·PLAN·OF·FIRST·FLOOR·



·PLAN·OF·SECOND·FLOOR·

HOUSE, GLENN HACKER, PALISADE, N. J.

Hacker & Hacker, Architects.

Historical Ancestry of the Multifamily House

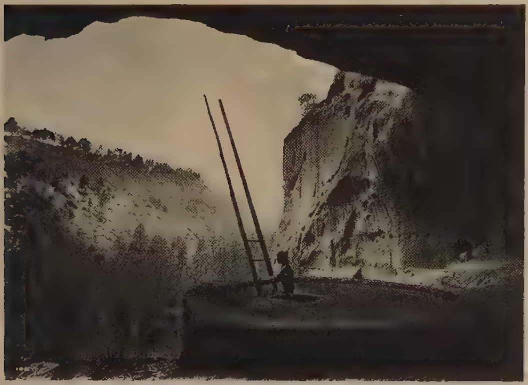
By Henry Atterbury Smith

Photographs by the author

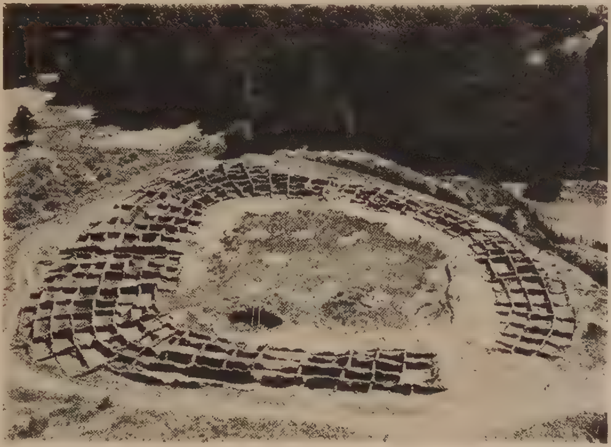
THE illustrations submitted to the architectural profession herewith may be of considerable interest from a historical, as well as an economic, point of view. The writer will be recognized by some of the older men of the profession as an individual hipped upon the topic of a certain class of multifamily house, the advantages of which he has since 1900 attempted to recommend, as one solution of housing the masses of industrial workers, and also as a means of dissipating congestion and helping traffic.

An architect in repose. The author, Henry Atterbury Smith. A social Engineer, A.S.C.E., A.I.A.

For a long time, and particularly during the war, it was considered un-American and unethical, to house by means of the methods that he advocated; hence this short statement in words, and simple demonstration by illustration, to show that "open-stair" and "periphery" and "saw-tooth" and "walk-down" and "hurricane bridge" and "semielevator," have some quite ancient precedents on this continent. He takes pleasure in drawing the attention of his discerning profession in the East, and particularly the tribe nearest his teepee on Manhattan, to the fact that "open-stair" multifamily houses are thoroughly American. Himself previously ignorant, he accidently discovered this fact last summer, while roaming the southwest with easel and paint-box hanging from his saddle. He came upon the five-story "open-stair" walk-ups of Taos, near Santa Fé, antedating the first log cabin of our Puritan fathers, and apparently destined to outlive our most boasted Park Avenue cliff-dwelling. The captions under each illustration make it unnecessary to provide any more filling in the text.

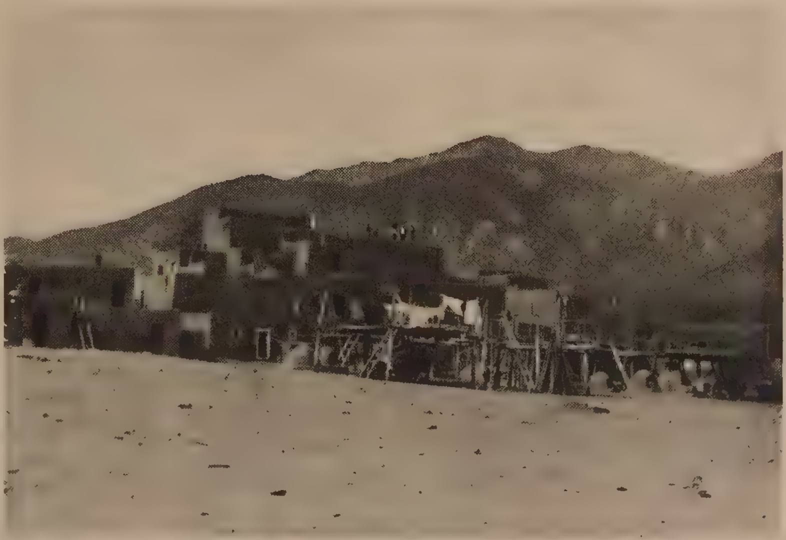

Ceremonial cave in Frijoles Canyon. An open-stair dwelling directors' room in the days of saw-tooth. The cayote is seen leading the other worthies to lunch.

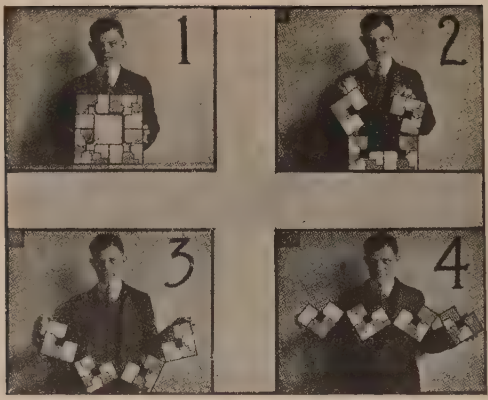
At the village of "La Mesa Verde," the latest achievement in Jackson Heights, in a most wonderfully idealistic and interesting economic housing development, our profession may view his most recent effort in this direction, combining all sorts of queer things.


The ruin of Frijoles. A circular multifamily housing development in natural landscape. Observe the ladder leading down to the ancient directors' room.

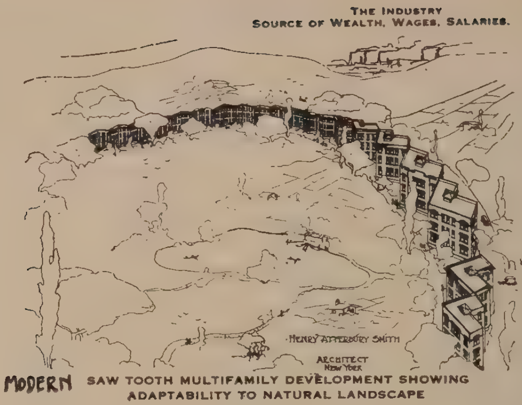
In Detroit, Cincinnati, Podunk, Rochester, Birmingham, or Hoboken, the particular Feudal Knight of that locality may some day command his local architect to design and construct something on the outskirts of this or that beehive (that has become a veritable tangle of traffic and congestion), a scientific economic industrial village on the lines here suggested. The rest of the profession may point with scorn and say "dead crib" from the "canyon of Frijoles." But such a financial feudal lord will have, by this means, contributed one means at least of unscrambling the congested omelet that tends to paralyze the city of to-day.

In closing, nothing interests our particular profession

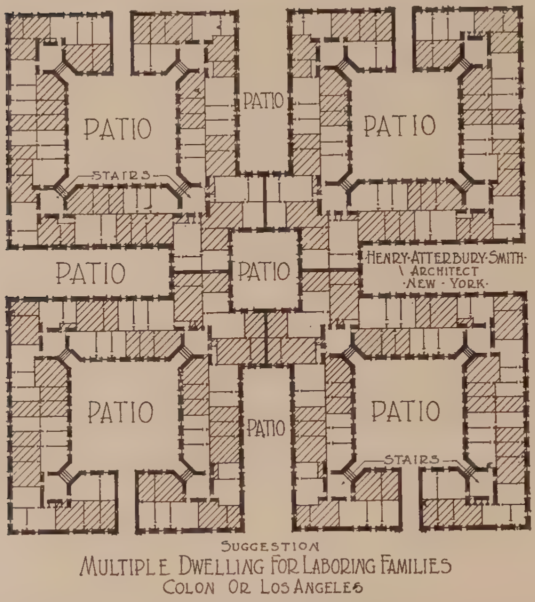

The open-stair walk-up of Taos. Antedating the first log-cabin of our Puritan fathers. The author is second from the right hand on the roof addressing a laundress a few stories below. The bee-hives are the co-operative ovens. There are no rent laws.



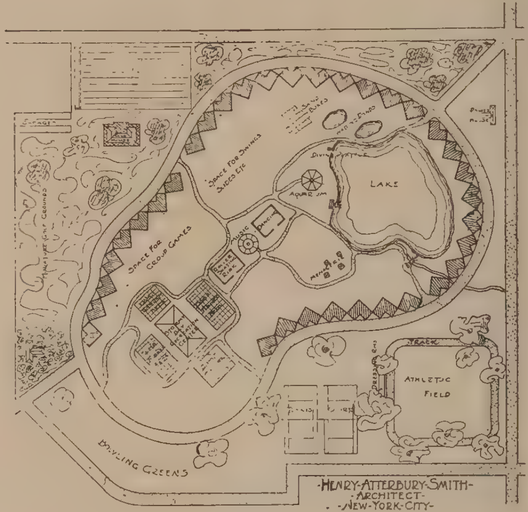
"Let there be light, and there was light."


THE INDUSTRY
SOURCE OF WEALTH, WAGES, SALARIES.
HENRY ATTERBURY SMITH
ARCHITECT
NEW YORK
MODERN SAW TOOTH MULTIFAMILY DEVELOPMENT SHOWING ADAPTABILITY TO NATURAL LANDSCAPE

If we must have multifamily houses (apartments), let them express hope and opportunity for the growth of the soul. Economical, refining, peaceful, leisure producing. There are gardens, flowers, and vegetables.



Where the economic necessity still demands congestion, let us protect the occupant as best we can.



A 500 family apartment house on a hundred acre lot with thirty or forty acres in the "back yard."

more than fees (if it be not ethics). For those that have been faithful enough to follow to this paragraph, I will make my confession! Like the ancient builders of the southwestern pueblos, the author takes his compensation in kind: three meals a day, a pallet for the night, a loin-cloth for adornment; and . . . 12 per cent of the cost of the village, taken in stock, (no cash, wampum or beads or nuggets of gold), as a "proper minimum charge" for designing and constructing the habitation of his era as his humble and proper contribution to his fellow man of the twentieth century.

The Princeton Architectural Prizes, 1926–1927

TWO competitive Prizes of Eight Hundred Dollars ($800) each, in the School of Architecture, Princeton University, are announced for the year 1926–1927. The winners are exempt from tuition fees.

The purpose of these prizes is to place at the disposal of experienced draftsmen of unusual ability, who desire to complete their professional training by contact with the academic side of architecture, the advantages found in the School of Architecture, the Department of Art and Archæology, and the Graduate School, of Princeton University.

The candidates shall be unmarried male citizens, not less than twenty-two nor more than thirty years of age on September 1, 1926, and shall have been employed as draftsmen in architects' offices for not less than three years.

Applications to compete for the prizes must be filed on or before April 24, 1926.

For application blanks and regulations governing the competition and award, address The Secretary, The School of Architecture, Princeton University, Princeton, N. J.

This is the third year these prizes have been given. Previous winners were, 1924–1925: E. James Gambaro and Charles H. Dombush; 1925–1926: Edward F. Allodi and Paul F. Taylor.

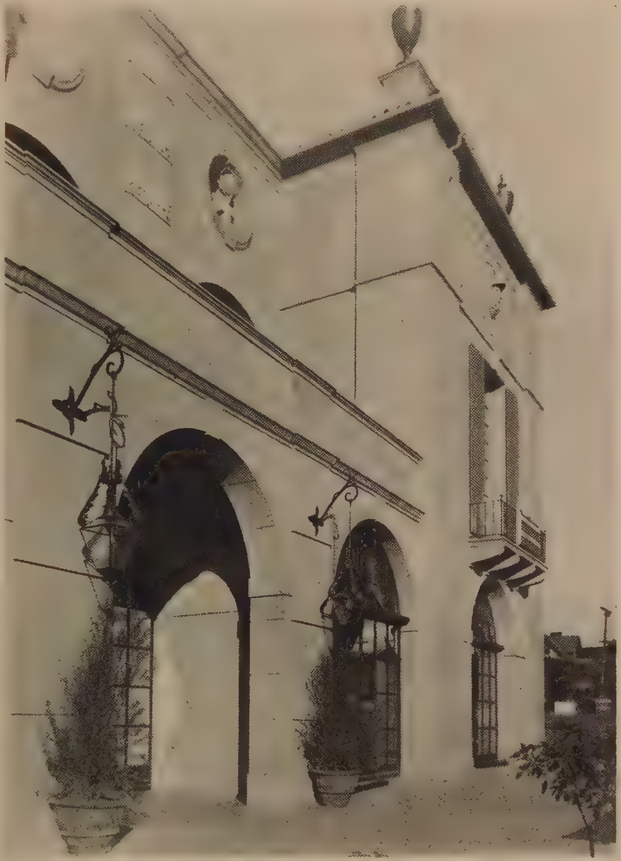
The Post Building, Los Angeles, California

A New Studio and Store Building of Exceptional Charm

Meyer and Holler, Architects

THE value of art in the business world is being expressed in the construction of stores and studio buildings, and architects are diligently searching foreign countries for models of fine material to be modified into beautiful buildings that not only are suitable to the modern age, but are an adornment to the great thoroughfares. Accompanying this adoption of interesting architectural detail, there has been an increase in the application of handicrafts, such as tile inserts, ironwork, plastering, and wall-painting, all of which materially add to the beauty of most buildings.

On Wilshire Boulevard, Los Angeles, Calif., a new studio and store building has just been completed, that is quite different from any other structure in the city, so much so that it challenges the attention of the passer-by. This is due in great part to the introduction of striking colors and to a breadth and spaciousness of design. You have a feeling that some of the Italians of the Renaissance would have liked this building, as it seems to be bathed in the prismatic sunshine of the South. They would have approved of the tall and ample window blinds on the second floor that have been painted an imperial blue, also of the large wrought-iron lanterns at the portico that were made with a generous sweep of line, and of the ironwork which is finished in a design that suggests the anthemion and that fills the upper part of the many square-paned lower-floor windows.



Detail.

The building is of concrete, covered with a slightly golden-tinged stucco. It is composed of the dominant main segment, nicely balanced with the subordinate wings of similar width, but having different sky levels. A broad balcony joins the wings on the second floor. The centre studios on this second story are a little back from the street line, an arrangement that allows for the introduction of a broad balcony, which is an acquisition in a balmy climate.

Above the windows in the wings, and on the balcony wall, there are deep circular niches that are alternately filled with art stone busts of historical figures such as Ajax, with beard and helmet, Apollo Belvedere, and Cicero. There are several unfilled niches, suggesting an ancient custom of southern Europe which provided on the State buildings for a few vacant niches to be occupied by the statues of the heroes of a future time.

To render a dramatic touch to the adornment of the building, large copper urns have been placed at proportionate distances on the top of the principal elevations of the roof lines. These urns are an important feature, as they tie the building to the sky, performing the same mission as the spires of a church. They are of a specific classic design and they are already weathering to a slightly greenish tone.

This same vivid and unusual decorative effect is accentuated by an awning of bright colors swung across the balcony from the wall to two supporting Spanish spears.

Just below the awning is the main entrance to the building. It is made especially attractive by a large wrought-iron lantern, that hangs from the centre of the richly decorated vestibule ceiling. It would not be uninteresting to state some of the details of the general construction. There are eight stores on the street level, averaging ninety feet deep and twenty feet wide. The windows of the first floor are fifteen feet wide and have window-panes secured by heavy bands of iron.

The second floor is devoted to studios and offices. Unusually lofty ceilings have been introduced in the second story, in order to attain a perfect proportion between the height, breadth, and depth of the building, with the result of an unusual sense of largeness and spaciousness.

The building is a marked departure from the average monolithic solid cement structure which can easily be made very uninteresting because of the lack of texture and severity of its form. Here we see a most interesting application of decorative details, as the red tiled roof, handsome copper urns, blue window-blinds, circular niches for busts, and heavy wrought-iron work. A covering of bricks was used over the cement, and consequently a gentle underglow of a delicate red is evident through the heavy coating of yellowish stucco.

The inspiration of this modern group of stores and studios was undoubtedly the colorful period of the Renaissance, when so much attention was paid to the striking use of colors in the beautifying of the cities. No doubt it will prove a harbinger of similar buildings that will add picturesqueness to a thoroughfare of a metropolis.

The Effect of Gravity on Building Construction

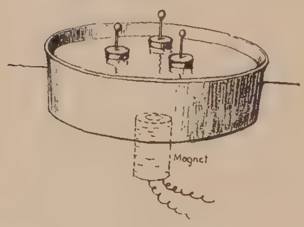
By H. Vandervoort Walsh

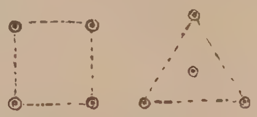
Professor of Construction, School of Architecture, Columbia University

ARTICLE VIII

OUR REACTIONS TO NATURE'S CONSTRUCTION AND DESIGN

THE creative designer, like the architect, cannot conceive of a form that is absolutely unlike anything he ever saw before. Rather, his creations are built up from images of objects that he has had impressed upon his mind. A bit here, a shape there, of this or that image is composed into one unified form. We study the architecture of the past, have books and photographs and measured drawings of great monuments, and from these we get our inspiration for the new creation. We study the works of contemporary architects and of dead men, in order to fill our minds with images that we can group together in a new and fresh manner. All designers know this to be true, and so it is only a conservative statement to make that it is of the utmost importance for the impressions of forms that are to be made on the mind to be fine and beautiful. That is one of the purposes of the study of the history of architecture, and one of the reasons for travelling.





SOME OTHER ARRANGEMENTS OF MAGNETS ON CORKS, FLOATING ON THE WATER

However, in these days of cheap pictures, books, photographs, and measured drawings, the average designer of architecture is apt to lose sight of the fact that there is another source, and greater teacher of design than these reproductions of works of architecture, created by men long since dead. This source of inspiration was used by the great designers whose works we study, because they did not have all of our facilities of getting reproductions of the monuments of buildings erected by generations previous to them. All they knew was the problem before them, and the previous attempts at a solution carried out by their fathers. Yet there was a great teacher of form to which all of them went with complete trust, and that was nature. They studied flowers, leaves, plants of all kinds, the shells on the beach, the figures of animals and of men. They drew their inspiration from the forms which existed in the world in which they lived. They trained their minds to appreciate proportion, subtlety of curve, grace of line, symmetry of form, and unity of composition by drawing and observing the things that lived around them. Their impressions of beauty were taken from the real source book on the subject. They learned of the universal and underlying laws of design and structure, not in an analytical way, but by developing their feeling and sense for them. The designer who has studied the human figure, so that he can, from his many impressions, draw a figure from the images in his memory, has absorbed a sense of proportion and composition that is most certain to improve the forms of anything he creates. An artist who has impressed upon his mind the beautiful forms of shells, flowers, and crystals will be able to pour forth these impressions in his design. His feelings for curves and proportion will have a first-hand quality, unlike that which a designer will have who has only studied the works of men and has forgotten to look at nature. That is our danger to-day. Our designers live in great cities, live in the picture-books which show the forms created by other men, and their ideas become weaker and weaker, for each time the process of absorption goes on, each time these forms go through somebody's head and come out into new creations, they lose a particle of the original truth which was in nature, and which the first designer saw. It is a process of dilution; it is a weakening of the stock; the vital blood of nature is running out.

This strange but modern habit of getting information about beauty in a second-hand fashion comes in an age when men have accumulated more knowledge about natural forms than has ever been known before. In our last article we called attention to the wonderful discoveries of modern scientists concerning the structure of the atom and molecule, and how this structure was the basic cause of the beauty of crystals. We are convinced that it is also one of the underlying causes of beauty in the plant and animal forms, for nature does not make lines of distinction but shows a universal relationship between her creations.

However, living forms have an added cause for their development; they have a work to perform and are wrapped up in the purpose of living. Like architecture, they first have the utilitarian problem to solve. If there is light, they must build an instrument, the eye, to record it; the ear is created to catch vibrations in the air; legs are built to move over the ground; wings are formed to fly in the air. Thus, unlike the crystal that is the result of the balance of internal structural forces, the living forms have an added reason for assuming this or that shape. They build with the same elements as crystals, but they build with a purpose. They build

to fit the conditions of the world in which they live, so that they may go on living and reproducing.

It is a wonderful sensation to realize the purpose for which a beautiful green leaf, like that which may be plucked from the maple-tree, is created to fulfil. It is an orderly form, symmetrical and proportioned with as great accuracy as a crystal, and yet it is one of the most active factories in the world. Its primary reason for existence is to be useful in dislocating the carbon molecule from oxygen, and begin the process of building up carbon compounds like sugar. These compounds are the building-blocks of all plant and animal structures. The leaf which is the factory for manufacturing them is operated by the energy of the sun. Through a process, called photosynthesis, the light of the sun is filtered through a screen of green pigment (called chlorophyll), and the energy of this light is absorbed to create the building materials of the plants and animals. Each leaf contributes its share of substance to the tree, and the great structure builds up out of the ground. Its wood we use to build our houses with, and the wood of trees of distant millennia, that has been changed to coal, is our great source of energy by which we run our factories that make our building materials, like cement, bricks, and steel. And what is more significant, these leaves are responsible for the energy stored away in the wheat, rice, and corn, and so our very life exists because of their work. Our clothing, too, is made from the cotton that is built up by the process carried on in the leaf. Indeed, almost everything is dependent upon the work that goes on within these marvellous leaf factories. Yet the whole shape and form of the leaf is beautiful, and it is not distorted by its usefulness of purpose.

This is, indeed, a real lesson for the architect. Nature does not produce a living form for the mere sake of the form, but it always has a utilitarian function to serve. This purpose does not call for ugliness of shape, but purpose and beauty are interlocked, one with the other. Many men have said this before, but creative designers who cannot or will not take the time to combine beauty of form with utility, set up the cry that a thing of beauty justifies its existence, regardless of its use, and that a useful thing, if it works and is ugly, justifies itself, if it is covered up with a shape that is attractive, although it has no relation to the thing it hides. They call the men who advocate the combination of beauty and utility impractical critics and purists. They send out the challenge: "Come, try it yourself, and see that it cannot be done." They forget to look at nature to learn that it was done millions of years before mankind was even living upon the face of the earth.

Now when living forms are built of the precious stuff created by the leaves, the greatest economy is practised. No parts are created with superfluous substance. If a column is to be shaped it is made round and hollow, triangular or hexagonal, and these forms are the most efficient column forms that can possibly be made. For its weight and the amount of material used, what could be more efficient as a column than a bamboo-tree or the quill of a bird's feather?

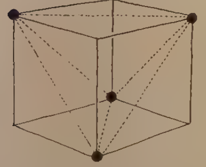
Then what more perfect dome could we wish than that which protects some of our shell-fish, like the scallop? It is ribbed, cohesive construction. It is a dome without a thrust, and its ribbed structure, like corrugated sheet metal, is the most efficient form possible to resist the crushing action of a load bearing down upon it.

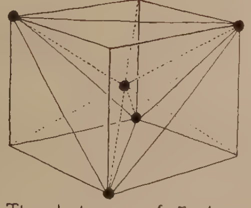
As for a light but strong building material, what could be better than wood, constructed of hollow cells, nearly hexagonal in shape, some running one way, and others running the opposite, so that a bonded structure results?

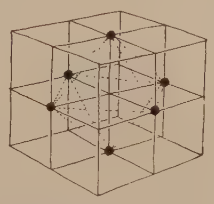
Indeed, structural designers would do well to study the forms which nature has invented for various building purposes. There are hidden among her creatures many ideas that have not yet been patented, but which, if they were, would bring many a fortune to the inventors.

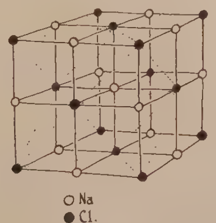
Although animal and plant forms build with the utmost economy of material and for a very positive purpose, they develop forms that reflect the basic laws underlying the more elementary forms of the crystal. The smaller living forms and the smaller parts of living forms reveal this fact the best, for under the microscope one can observe the most wonderful geometric arrangements of parts that could be conceived. Little shell-like creatures, called diatoms, or severed cross-sections of plant stems or buds, patterns upon the wings of insects and crestings upon their eggs, when viewed under the power of the glass show that the atoms of which all living forms are created have not forgotten their laws of regular geometric building.

There is, however, a peculiar difference between crystal

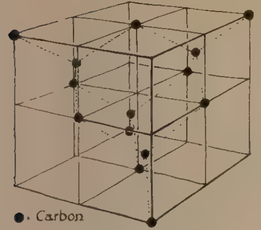

The balance of 4 atoms
Distance between is equal


The balance of 5 atoms

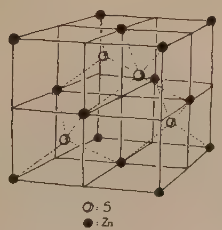

The balance of 6 atoms
If there were 7, one would be in the center



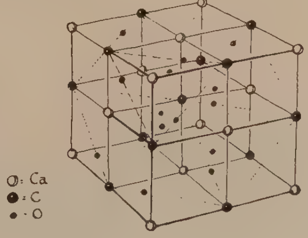
Atoms in salt crystal = NaCl



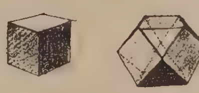
Atoms in the Diamond

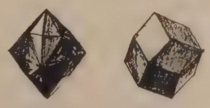


Atoms in Zinc blende



Atoms in Iceland Spar = $CaCO_3$


SALT CRYSTALS


DIAMOND CRYSTALS

forms and plant and animal shapes. The latter have curves and flowing lines in them, whereas the former are built up of flat structural planes. These flowing lines of the living creatures are due to the liquid condition of most of their bodies. Now we know that when matter has heat added to it, it changes from solid to liquid, and has a less substantial structure, and so it flows and runs under the action of gravity. Plants and animals are built up of minerals which have been stimulated by heat, and which are less compact in structure than cold, solid crystals. Accordingly, when we study living forms, although we see vaguely in them the underlying geometric structure of crystals, yet the dominating influence of curved lines eases the hardness of this structure.

We have learned to recognize that these two classes of forms, the crystalline and the living, have certain characteristics. The former are dead, and set in rigid angles, the latter are filled with life and warmth, and are outlined by liquid, flowing curves; the former are cold, hard, brittle, and angular, the latter are warm, soft, flexible, and curved.

The snowflake is cold, hard, brittle, and angular, but the flower which may partake of a similar geometric form is warm, soft, flexible, and instead of being angular in its structure, is chiefly outlined with curves, for it is built with some liquids.

In this way our minds have learned to classify the character of forms in a symbolic way. We speak of the masculine figure as hard, angular, and rugged, while we speak of the feminine figure as soft and curved. The former has suggested the character of crystals, the latter the qualities of flowing liquids. The masculine temperament, in comparison with the feminine, is spoken of as cold, reasoning, and deliberate, like the coldness of the crystal. The feminine temperament is warm and tender but changeable, like the warmth and changeableness of liquids. We think of a crystal as something hard, durable, and stable, but we think of the leaf as something soft, perishable, and unstable. The crystal is masculine in association, the leaf is feminine.

Carrying our impressions further, we apply them to ornamental forms which we create. If we desire a leafy form in ornament, we conventionalize it, which is a term we use to signify that we have given to that leafy form some of the cold, rigid symmetry of crystalline forms, in order to suggest a shape that is more permanent and more fitting to execute in durable materials like metal and stone. If the acanthus leaf were carved to duplicate the natural form as we find it growing, it would suggest to us a form that was unstable and of transient character. But we are able to conventionalize it, that is, give it a rigid axis and a geometric symmetry and an angular crispness to its curved lines, and so freeze it into a durable and what seems to be, by association, a permanent shape suited to be cut in crystalline marble.

No wonder the pyramids of Egypt have a primitive appeal. They are but reproductions of the most elementary crystalline forms, and these forms suggest permanence and durability in the most impressive way. Mankind has intuitively known this from time immemorial, because the world in which he lives has taught him to associate these ideas. Likewise architects have recognized that a building which is intended to be gay and playful, like a casino or an exhibition building, should be somewhat feminine in character, and be composed with many curves. This is the very opposite conception to that of the pyramids. Indeed, when we talk about the character of buildings, we are referring to this basic association of ideas which we have learned from crystal and living forms. We point to this state capitol, and say it is not stately enough. What we mean is that the building is not masculine in character, and is not composed with enough angular lines. We can see how such ideas have changed, if we study the designs of banks. Fifteen years ago or more, a bank was supposed to suggest the safety of the financial power of the institution, and so our banks were designed in a stiff and formal manner, which is just another way of saying that the angular lines predominated over the curved ones. To-day, we have taken the bank clerks and president from behind their bars and partitions, so that they may seem to extend a warm and friendly hand to the depositor. As a result, our bank buildings have taken on a more playful aspect. Curves have entered more into their composition, and so the warmth of the liquid, living thing has been suggested by association in order to create a more human atmosphere, for curves do not exist in nature when matter is cold and crystalline, but only when matter is energized by heat, as in living forms and running waters.

Stadium, Philadelphia Sesquicentennial. Simon & Simon, Architects.

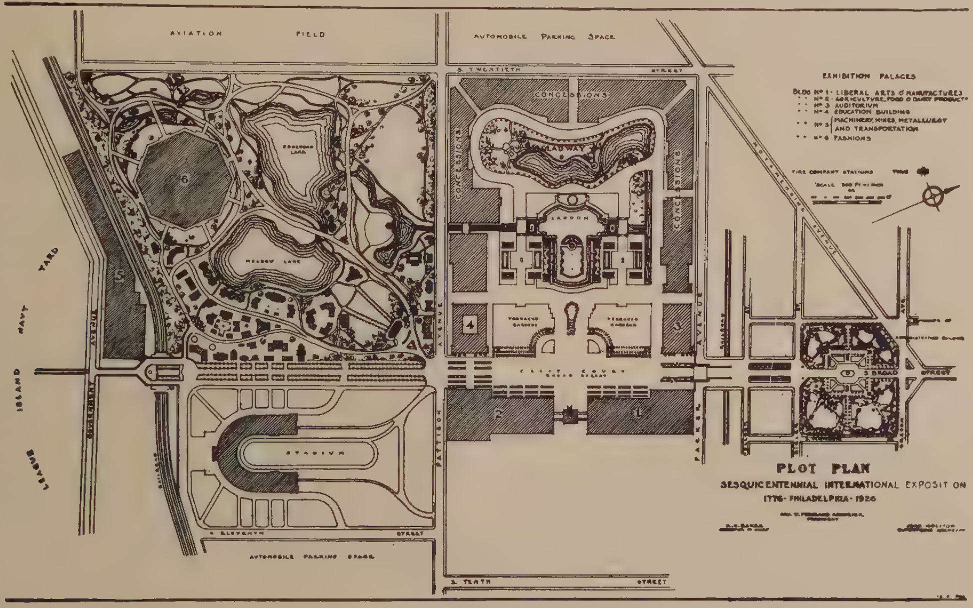
Will Be a Rainbow City

Philadelphia's Sesquicentennial Buildings

John Molitor, City Architect

IF exposition buildings belong in any category of design it is in the "mushroom school" of architecture. Here to-day and gone to-morrow, they are built to conform to standards entirely different from ordinary buildings, which usually combine the greatest durability over a period of years with designs which often reach back into the mists of antiquity for their source.

The architects for the Sesquicentennial International Exposition, having to cope with the necessity of erecting immense exhibit "palaces" with limited time and money at their command, have evolved a sort of "Rainbow City" with stucco buildings tinted in pastel shades. It is thought that the color scheme will be more restful on the eyes than the pure white buildings reflecting the glaring sunlight of other expositions.



The structural method adopted for the temporary city is that of steel skeleton framework on wood pile foundations, and with stucco walls laid on wood studding. The great wall spaces are broken by "spots" of design afforded by pavilions, towers, and entrance openings, colored in brilliant shades.

Any one who examines the architectural scheme of the Sesquicentennial Exposition will observe that there is more symmetry in the group than in many other expositions, due to the fact that it has been the product of a very few minds working together. Moreover, it was evolved with the thought of the surroundings ever in mind, so that the plot-plan is in keeping with the low, flat, 2,000-acre plain, laced with waterways, on which it is situated.

The Palace of Machinery, Mines and Metallurgy, and Transportation, the largest and longest of all the buildings of the Exposition, covers nine and one-half acres. A railroad belt line runs to the north of it, allowing railroad trains to enter.

Due to inequalities in the levels of the site, ascent and descent from the entrance level must be made by means of escalators. The main entrance has been developed into a tower about 75 feet square and 135 feet high, the top of which is a dome 30 feet in diameter. At each corner of the tower is a buttress surmounted by a winged Indian head, 8 feet high.

The domed ceiling of the entrance interior rests upon a pendentive vault. At the story level of this tower, which corresponds to the level of the exhibit floor, is an auditorium which will hold approximately 500 people.

The largest, if not the most interesting, feature of exhibit layout, has been provided for in a full-size railroad turntable, 115 feet in diameter. The accommodation of this turntable has necessitated the design of specially large trusses to span such a space without obstructing intermediate columns.

The west side of the building will be similar to the concourse of great railroad terminals. Four lines of railroad tracks will enter it a distance of 850 feet, on which will be exhibited all types of Pullman cars, day coaches, locomotives, freight and electric cars.

The Palace of Liberal Arts, Manufactures, and Education, covering eight acres, and that of Agriculture, covering one-half acre more, are very similar in design. The roof of the former, which at its greatest height is 60 feet from the floor, is supported by steel columns placed so that they do not interfere with exhibition space. It is "stepped" to allow placing of sash and skylights to admit a greater amount of light and air. The exhibition spaces located on the floor of the structure are generally about 16 feet by 25 feet.

One large main entrance portico is flanked by two towers, which form, with the portico, the north bay of the building. This portico consists of six columns which form the monumental vestibule leading, by means of seven doorways, into the main aisle of the building. Above the six columns is a frieze 75 feet long, symbolizing the industries of agriculture. The towers are approximately 95 feet high. At their street level are vaulted rooms with fountains in the centre. The upper parts of the towers have pierced grills behind which are many colored lights. The very top of each is formed by a large flashing jewel light.

The entrance niches have, on either side, a free standing column surmounted by a graceful figure. The niches themselves have coffered, half-domed ceilings.

The Palace of Agriculture differs from the foregoing only in detail. The ornament and friezes have been designed to symbolize the type of exhibits contained therein. On the south façade is an arcade 400 feet long, with display windows similar to those which face the street in both buildings. It has a most interesting ceiling formed of a series of groined vaults. In the central part of this arcade is a large vestibule, which has been named the Indian vestibule because of the various ornamental portions which have been inspired by the remains of the works of art executed by the aboriginal races of America. There are three arched doorways with grills designed in the Indian manner opening into the long main aisle, which is parallel to the street.

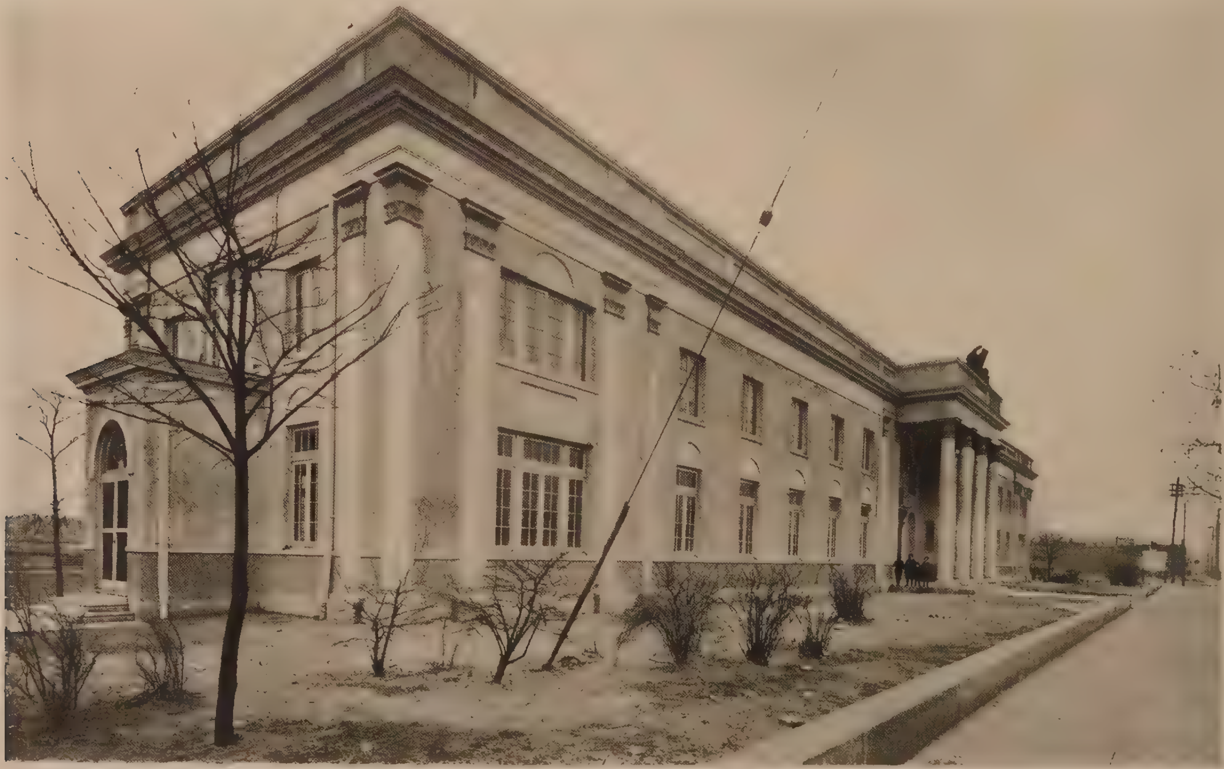
The construction of the auditorium follows the style of the exhibition buildings. In general its plan consists of three wide aisles. The main aisle is a clear span of 150 feet, unobstructed by any columns, to span which huge circular steel trusses have been specially designed. Immediately to the front of the main aisle is a grand foyer, 150 by 30 feet, having a great barrel-vaulted ceiling. From the foyer are five doorways leading to the exterior through the entrance colonnade, which has been designed to symbolize the formation of the thirteen original colonies into the United States of America. The coats of arms of the different States form a prominent part of the decorative features of the entrance colonnade.

The Stadium, which is a permanent structure, is the largest amphitheatre in the world. It is in the shape of a great U. Across the open end is thrown an architecturally treated enclosing wall, which projects 300 feet from the seating stand, and through which various gates and archways serve as exits or entrances to the field This arrangement creates an arena 840 by 350 feet, containing football and baseball fields, a quarter-mile track, and ample room for the placing of two 220-yard straightaway sprint lanes. Both the start and the finish of these lanes are well within the confines of the Stadium, and in full view of the spectators. The work of the Stadium is being carried on in several principal subdivisions: foundations, superstructure, field construction, plumbing and heating, electrical work, and others of lesser importance.

From the outside, the Stadium will look like a long, arcaded brick wall trimmed with stone. Two towers mark the northern extremities. Thirty-nine entrances, distributed regularly along the outside wall lead directly to the ramps and portals, which open out to the seat deck, midway between the top and bottom rows. Thirty-eight arched openings are distributed regularly in the Stadium wall as exits. The apertures are 18 by 28 feet, allowing ample space for general crowd exit, and avoiding the annoyance of slow egress.

Aside from the foregoing plot-plan of the Exposition, there are a number of other buildings being erected on the grounds, such as State and foreign pavilions, which will conform to plans projected by their sponsors.

All of the buildings are being erected with a speed incomparable even with that of other expositions, in order that the Sesquicentennial International Exposition, commemorating one hundred and fifty years of American independence, may open on June 1.



Administration Building, Philadelphia Sesquicentennial.

More Light on Panel-Boards

By *J. E. Molony*

Illustrations by Courtesy of General Electric Company

TYPE letters and numbers, universal distinguishing marks for all products, electrical and mechanical, are, when taken alone, very vague, elusive, and uninforming; furthermore, when arrayed in solid phalanx and long column, they often present a bewildering, disconcerting front to the prospective purchaser.

This is particularly true of panel-boards. The multiplicity of types, the shades and differences of service, the variations and semivariations of forms, and a host of minor deviations in design, all combine to convey the impression that a comprehensive knowledge of panel-boards, by type letters and numbers, is a mental attainment of staggering proportions.

These difficulties, however, are but mole-hills magnified to mountain ranges by an apprehensive imagination. A close study of these boards is hardly begun before the innumerable species of the family move out of chaos and range themselves, seemingly automatically, in precise and orderly fashion, each to its purpose, each to its service, with the proper type letter and number following naturally, an absurdly simple cap-sheaf.

The first classification that suggests itself is the obvious division into lighting and power groups. As a means of distinction, however, such a grouping is more nominal than real. Between panel-boards solely for lighting and panel-boards solely for power, there are a number of combination boards which are neither, exclusively, and yet a little of both. Consequently, for the lack of a place to draw a line, there can be no true division.

The next classification that comes naturally to mind is more limited and definite, a separation according to operating features: the safety type and the live-face type. These, in turn, may be subdivided further, the doors of the cabinets and the manner of making connections to the main being the principal points of difference.

In the highest class safety-type panel-boards (the door-within-a-door type), unauthorized access to the current-carrying parts is not possible. The small door permits access to the handles of the branch switches, and to the safety switch in the mains. This is accomplished by the use of metal cover plates over the switches and the main buses. This is also true of the single-door safety-type panel-boards, although, in this case, it is possible to get into contact with live parts of the fuses if the branch switches are closed.

For the present, the live-face panel-boards and that portion of the safety-type panel-board line intended for the control of power, either solely or in combination with lighting control, will be dismissed with a promise. As subjects for descriptive articles, either is more than sufficient when taken alone. Of more concern, at the moment, are the seven forms of the safety-type panel-boards which are rapidly becoming a standard specification with architects for the control of lighting in industrial buildings, hotels, schools, public buildings, apartment-houses, and residences. These are the "T" and "J" lines, and the single Type P panel-board.*

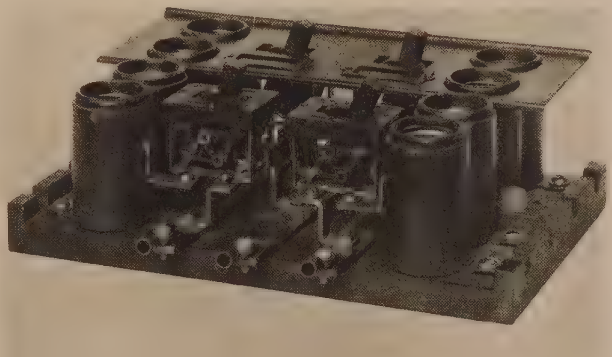
In general, the two lines run parallel in design, the principal difference lying in the matter of service; that of the "T" line being heavy duty, the "J" line, light duty. In both types 30-ampere tumbler-type switches are furnished for the branch circuits, but, with the heavy-duty line, the switches have an added "strength" for the more severe service.

The cabinets, of N. E. Code standard-gauge sheet steel, finished in black enamel, are made in two forms: flush and surface types. The latter is built with the front plate even with the sides of the cabinet, and thus presents a finished appearance when located, as it may be, on the side of a wall or on a column, without any attempt to hide or to cover the sides. The surface-type cabinet is intended for use in basements, cellars, warehouses, and storerooms, where unenclosed conduit work is not objectionable.

The flush-type cabinet is designed for "built-in" work. The front plate projects over the sides of the cabinet and, when the cabinet is installed, completely covers the unfinished edges of the recess in the wall. It may be used in any interior location, however conspicuous, for the front plate of the cabinet may be given the same decorative treatment as the wall in which it stands, an artifice which will render the cabinet all but invisible.

The panel-board is assembled, or built up, with unit sections before it is bolted into the cabinet. The base, or main supporting element, is two steel straps, drilled to hold the unit sections.

The unit sections may be divided into four forms. There is a narrow end-section, which may be used either at the top or bottom of the panel-board, and a wide end-section, for a similar use, when switches in the mains are specified.



FOUR CIRCUIT UNIT FOR TYPE CPS NARROW UNIT PANELBOARD
(ONE BRANCH CIRCUIT COVER PLATE REMOVED)

The other two forms are a 4-branch-circuit section and a 6-branch-circuit section. The use of the two end-sections is amply illustrated in the accompanying photographs, but some explanation in connection with the branch sections may not be amiss.

The branch section is a complete device in itself. There is an insulating base of molded compound upon which are mounted, across the centre, three copper straps which are segments of the panel-board bus. One end of each of the

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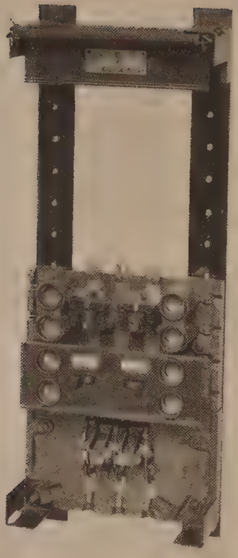
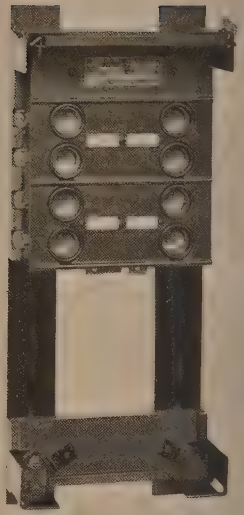
* A. M. E. S. trade designations.



TYPE CPS NARROW UNIT PANELBOARD WITH UNFUSED TUMBLER SWITCH IN MAINS (ONE 6 BRANCH CIRCUIT UNIT REMOVED)

TYPE JP NARROW UNIT PANELBOARD WITH CABINET, 125 VOLTS 3 WIRE MAINS, 2 WIRE DOUBLE BRANCH CIRCUITS AND UNFUSED SAFETY SWITCH IN MAINS



TYPE PS NARROW UNIT PANELBOARD ARRANGED WITH LUGS IN MAINS ONE 4 CIRCUIT BRANCH UNIT REMOVED.

straps is off-set so that the bus of one section may be bolted to the bus of its neighbor.

At the outer ends of the section, ready-connected to the busses, are fuse clips for cartridge fuses or receptacles for plug fuses. When switches are a part of the equipment, they are furnished, ready-mounted, between the busses and the fuses. Neat cover-plates, of sectional-unit design, finished in velvet black and bearing small card-holders, complete the device.

With these sections panel-boards may be built up in multiples of four and six to any desired number of circuits. When the required number of branch sections and suitable end-sections has been assembled and bolted to the steel straps, the panel-board is ready for the cabinet.

Work of installation is but little more than fastening the panel-board in the cabinet and connecting the lighting circuits. On the back of the cabinet, properly spaced, are four clamps, arranged to hold the ends of the steel straps. This method of support allows considerable adjustment, so that the panel may be squared or "trued" to the wall, whether or not the cabinet is in perfect alignment.

For panel-boards up to and including 40 inches in height, the cabinets provide a wiring gutter 3 inches wide on each side of the panel-board. For larger panels, a gutter 4 inches wide is provided.

Where a lever switch, fused or unfused, is desired in the mains between the panel-board busses and the source of power, it is always so placed at the top of the panel that the blade and fuse receptacles, if used, are dead when the switch is open.

When a safety switch in the mains is ordered, it is furnished, unfused, located at the bottom of the panel, and of 60-ampere capacity for cabinets up to twelve circuits. For a greater number of circuits, a 100-ampere brush-contact switch is the standard equipment, although on special request this type and capacity of switch will be furnished for less than twelve circuits. Where terminal lugs are acceptable, they are bolted to the drilled holes in the lower or upper ends of the panel busses.

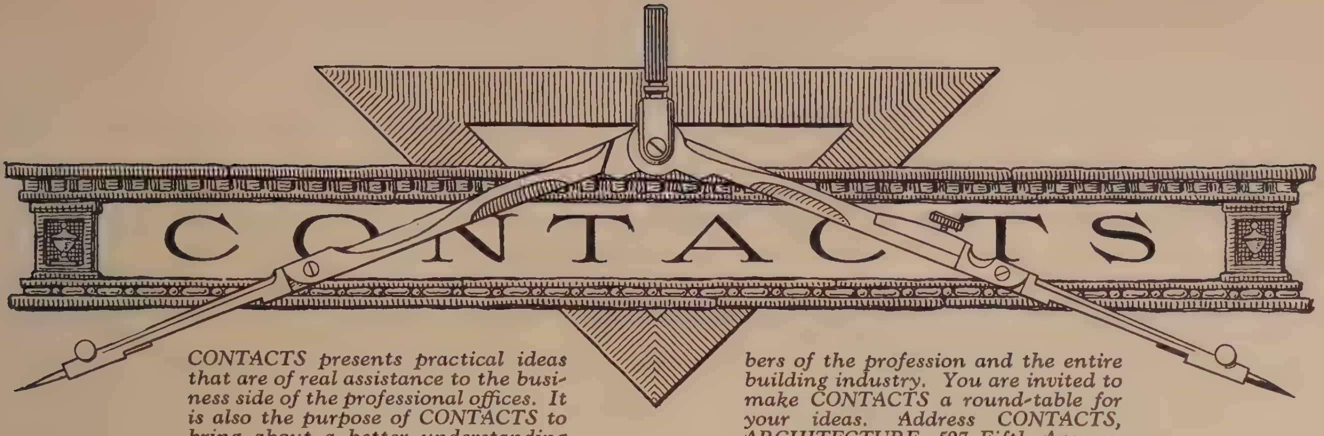
The wiring completed, barriers of ⅜-inch compound finished in dull black are placed at the sides and at top and bottom of the panel. The ends of the barriers are held in special clamps which are a part of the end-sections. After the barriers have been clamped tightly, the front plate is screwed in place and the job is ready for the decorator.

Panel-boards are suitable for 3-wire, 2-wire distribution, and may be used on single-phase 3-wire or Edison 3-wire systems.

For use with 2-wire mains, where terminal lugs are acceptable, the 3-wire panel-board may be converted by connecting a jumper across the two outside busses. For such an adaptation, no additional charge is made.

There is an extra price for 2-wire mains, with fused or unfused switches. Panel-boards may be furnished for 3-phase to single-phase distribution.

The cabinets are usually furnished with one row of ½-inch knockouts on top and bottom, spaced to accommodate entrance bushings and lock-nuts. Special arrangements of holes or knockouts will be furnished without extra charge if the location and the size of such holes are indicated on the "Drilling Data Sheet."



CONTACTS presents practical ideas that are of real assistance to the business side of the professional offices. It is also the purpose of CONTACTS to bring about a better understanding and co-operation between the members of the profession and the entire building industry. You are invited to make CONTACTS a round-table for your ideas. Address CONTACTS, ARCHITECTURE, 597 Fifth Avenue, New York.

How the Catalogue Can Be Made to Help the Architect

The Importance of the Technical Library—How to File and Classify the Catalogues

By George A. Chapman

Of Tyrie & Chapman, Architects, Minneapolis, Minn.

IT is clear to see that, country-wide, there is a definite trend toward a logical economy. Particularly is this true in the building industry. Of all groups of men, and especially professional men, none have a greater opportunity to guide this trend than the architect.

George A. Chapman.

The architect is a trained analyst. Most of his professional life is spent in weighing this against that in terms of worth. Often we hear of the brilliance of the young, inexperienced man, his genius in design, his adventures into new realms, but fundamentally, no matter how clever he may be, the architect will be judged by his accomplished work—the actual finished building achievement, and how well this measures up to practical needs balanced by the invested cost.

No architect is properly so titled who wilfully narrows his experience to design problems only—the least worrisome of the creative work of his profession. What does the architect think of the sculptor who models only and who has no technical experience in his hand actually to carve with tool and mallet the marble he senses?

In design an erasure prepares the way for correction of errors in judgment, whether on paper or in clay, but what corrects the error in judgment in wood, steel, concrete, brick, and stone—materials assembled to endure? Must we point to the many who have achieved the broader success to refute the idea that the artistic temperament is incapable of understanding and executing the practical problem?

Written large on the signs of the time, and bound close to this era of economy are the two prerequisites—*simplification* and *standardization.* Building industry is making tremendous strides toward advancement; the architect is an integral part of and a leader in the movement. The manufacturer needs his sympathetic interest, his keen co-operative help, all to accomplish the common end—better buildings at better investment costs.

The problem of the catalogue is a problem of economy to the architect, and a greater one to the manufacturer. Catalogues are a problem to the manufacturer, particularly, since he is "paying the piper"; and in the main he is quite willing to admit that he is far from arriving at his objectives, *first,* to be of assistance to the architect, and through him, *secondly,* to be of assistance to himself. How shall he place the facts about his material or method of construction so that this information will be of actual use to the architect, and in so attempting not waste 80 per cent and more of the cost of producing this literature? Conservatively, in the average, an 80-per-cent loss of effectiveness is what the manufacturer faces to-day, and he is fully aware of this fact.

Is it possible that the architect thinks that he can function without a comprehensive knowledge of the products that building industry develops? Does the architect think that all the facts about building-materials and methods can be assembled by any individual or group of keen, analytical technologists in a library of handbooks? If this were possible could the average architect pay for this library if it existed, and how long would its information be dependable?

The architect is retained by his client not only for the design, but as well for his knowledge of materials and how to use them economically and to the best advantage. Thus the architect realizes the importance of his *technical library.* The intelligent building-industry manufacturer is endeavoring to furnish this library without cost to the architect, and to do this in the way the architect wants it done.

The manufacturer, pretty generally, is aimlessly shooting in the dark, and it is costing him a lot of money in the experiment. Each catalogue edition takes many months in its development, and many run into the thousands of dollars in cost of illustrative drawings, plate-work, compiling, paper, presswork, and distribution. And let it be said that the architect bases his preference for a particular product on the reliability of the manufacturer and the measure of service that he maintains—service in the field outside of the architect's office in relieving him of endless detail, once the product is specified for use.

Can we not agree on what is the ideal catalogue? Is it more than properly correlated, condensed, complete informa-

(CONTACTS—*Continued*)

tion, so edited and arranged as to be easy to read and refer to? It must be designed particularly to fit the needs in the drafting-room and give the information needed by the specification writer. Of course, it must be designed to file conveniently and logically with the minimum expenditure of time and money by the architect, and when filed it must be easily and quickly found when needed. To conserve file space it must be devoid of good-will advertising and all references and illustrations that do not bear directly on what the product is and how and where to use it. The better catalogues already show a tremendous improvement in just these particulars.

A typical letter-file cabinet catalogue library. A card index aids in finding literature, though each drawer-label carries the general classification of content. Note that the top forms a shelf which carries unfilable book catalogues. This library is about 90% complete, consisting of seventy-two running feet of file space in addition to twenty-four feet of top shelf space.

It doesn't seem necessary to enter into a discussion of standardization of catalogue sizes, at least so far as building-industry catalogues are concerned, because, in spite of all investigation, surveys, and existing data, *logic* in the end will prove conclusively what is and what is not a convenient filing type and size. It is not logical to maintain that the type and size shall be determined by the economies of paper production, paper stocks, or the mechanics of printing. One may produce a catalogue wherein all these elements receive chief consideration, but in the end, if it is not of a type and size which files *logically and conveniently*, and, when filed, if it cannot easily and quickly be found and removed from the file for reference, then it has failed in its object and will positively prove its own worth in its average waste of 80 per cent or more of its cost.

How shall we file catalogues? Many manufacturers, and among them some who have endeavored consistently to measure up to the architect's highest ideal, in so far as he has expressed it, maintain that many architects do not attempt any logical method of filing. If this is a fact, then these are men who care little to conserve their own time and effort—they can accomplish that much less in the day's work—yet will complain at the return in dollars and cents on their investment in education and experience. To-day every minute for accomplishment counts—if we waste time in fruitless search for needed information, that much time is lost in production.

How many logical ways are there to file catalogues in the architects' technical library? There can't be many. Why not, just in the line of *simplification* and *standardization* admit of two only? To be consistent, let us settle on the *shelf-file* and the *standard letter-file cabinet*, or possibly on a combination of the two.

The shelf-file is simple, and for a small library of selected standards will suffice.

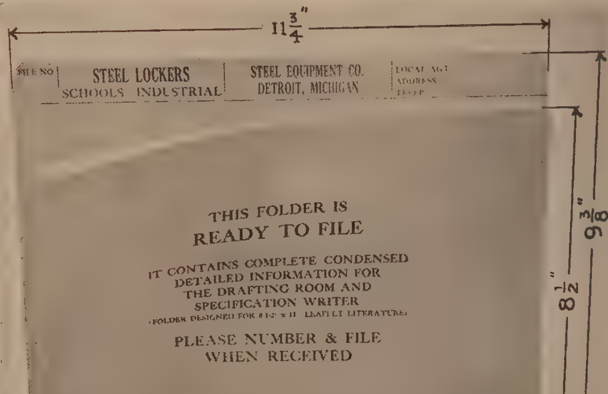
The letter-file cabinet, however, is the most compact method of filing for the space it occupies, and will easily and economically house the great mass of catalogue literature. It is a piece of office equipment made in a variety of materials and designs, yet which is absolutely and definitely standard in its content size. It is elastic, in that units may be added from time to time, and its cost, established on a basis of quantity demand and production, is reasonable. Standard forms of drawer indexing and subdivision are made to meet practically every demand.

If the catalogue is designed to file equally well in either the shelf-file or the letter-file cabinet, its design, so far as filability is concerned, will be achieved.

What is the best method of classification? Possibly no one classification will meet all requirements; that is, all architectural practice in all parts of the country. Fundamentally the classification should follow the specification divisions.

The Standard Construction Classification, prepared and issued by the American Institute of Architects, will meet the great average of classification needs. It is an accomplished fact and a definite step in the direction of standardization. It is a guide and a starting-point—a foundation upon which to build. The ingenuity of the architect—and he is presumed to possess this, plus—can readily evolve a classification which will fulfil any special need, provided simplicity of operation is the watchword.

And there let this discussion end—or start—as you choose, but mainly let it foster some agreement in the much-needed economy of *simplification and standardization*.



The correct standard folder for literature, designed to fit in the architect's file. This folder is prepared to take all leaflets, catalogues, etc., on the subject of "pipe and exhaust fans." This filing folder adapts itself equally well to the letter-file or shelf-file. Architects can simplify and standardize their filing by use of this folder.

(CONTACTS—*Continued*)

"Or Equal"

What the Architects Have to Say About It

NO SUBSTITUTION WITHOUT ARCHITECT'S CONSENT

"OR equal" will be part of the specification until the methods of obtaining bids are revised, since most owners want a building for the least possible money and at the earliest date possible.

However, "or equal" should only be used when there is on the market a number of manufacturers' materials which can fill all the general uses of that material, and most manufacturers will admit that for standard conditions the other fellow's materials can be used successfully.

When there is a very special and particular condition to be met, then the "or equal" should be omitted, and in its place "the contractor may submit alternate bids on substitute materials where special brands have been specified, but may not use a substitute without the written consent of the owner or architect."

James B. Fisher, Jr.,
Of the office of Murgatroyd & Ogden, New York.

THE ARCHITECT IS NOT OMNISCIENT

I am in favor of the use of "or equal" subject to a clause in the general conditions stating that the architect is to be the judge as to whether an alternative is really equal to the article specified, and that no alternative is to be used in the work without the architect's approval.

The architect is not omniscient and must often depend to some extent upon the contractor's co-operation. In these days of continuous and rapid change it would be impossible for the architect to include in his specification a complete list of all the alternative materials or devices suitable to the purpose in hand.

Furthermore, by giving the contractor a certain latitude of choice, the architect can often obtain lower estimates than would otherwise be the case, because the contractor is thus enabled to utilize materials which he has in stock (*e. g.*, special steel sections) or which are locally available.

Hugh Tallant,
Architect, New York.

A LAZY ATTEMPT

The phrase "or equal" seems to me to be useless, since few materials are "equal." Its use is apt to cause discussion and controversy, for it does not necessarily imply that the architect shall be the sole judge as to whether the substituted material or article is equal or not.

It is a lazy attempt on the part of the specification writer to protect a client against monopoly; or it shows that the architect himself does not know exactly what he wants. If there exists a feeling that to specify one article or material would give an opportunity for the contractor furnishing the material to charge more than it is worth, the (or) "Equal" should be substituted by the name of an alternate article which would be acceptable.

Marmaduke Tilden, Jr.,
Of Tilden and Register, Architects,
Philadelphia.

A SPECIFICATION FOR PUBLIC WORK

An architect engaged in public work has little choice as to whether "or equal" shall be used in his specifications.

We quote the clause which we employ to cover the situation:

> "*Equivalents.*—Whenever or wherever an article or any class of materials is specified by name of any particular patentee, manufacturer or dealer, it shall be taken as intending to mean and specify such articles or materials described or any other equal thereto in quality, finish and durability, and equally as serviceable for the purpose for which it is (or they are) intended, as may be judged and determined by the Architects, whose judgment shall be final and binding on both parties to this contract.
>
> The Contractor submitting other articles or materials than specified for the Architect's determination shall pay for the service of experts and for all tests, inspections, and examinations of materials, apparatus and appliances, submitted or proposed as substitutes for those shown or specified, and the cost of all expenses incident thereto, which may be necessary in the opinion of the Architects to determine their quality and their amount and disposition in the building; the tests to be made by persons designated by the Architects."

There is no question in our mind but what this expedient hinders obtaining best materials, but as I said in the beginning, an architect engaged in public work has no choice unless it is to practically prevent obtaining low bids on his work.

Frank Irving Cooper,
Architect, Boston.

A DANGEROUS EXPRESSION

"Or equal" is indeed a very dangerous expression to be used in a specification. In the business of building, the many human elements that are involved naturally bring forth all the weaknesses of man, and it would be a wise course if the architect incorporated in the specification every safeguard against a dispute or difference in judgment of individuals. If every one were of the same mind, the term "or equal" would have no objection, but since this is not the case, the mere term "or equal" without any qualification would be a most dangerous way of specifying any detail for any material.

In our practice we invariably use the words "or equal, in the architects' opinion." This we feel is sufficient safeguard, and it does not tie up the contract to any one particular material or detail. It is equally ill-advisable to specify one special thing where there are many others that might be substituted, and in order to bring the figures within reasonable reach, it is always well to let the bidder know that he does not control any one material or detail. It is absolutely essential to any particular case. The architect that specifies "or equal, in the architects' opinion" is frequently subjected to a great deal of unnecessary annoyance due to the fact that he must listen to the pleas of salesmen who are

(CONTACTS—*Continued*)

endeavoring to convince him that their product is either the superior or equal at least of any, but to this particular inconvenience the architect seems to have no escape, and it is one of the penalties or costs of the profession to which he must subject himself.

While it is usually an annoyance, such an interview may become most pleasant and enlightening, and we have always made it a practice in this office to receive most cordially all representatives and give them at least a courteous preliminary hearing. If one cannot devote this much of his time to what should be a real investigation of the thousands of new materials and details that are being evolved always, an architect can hardly be said to be giving his profession the constructive thought that it deserves.

Guy Study,
Of Study & Farrar, Architects, St. Louis.

KEEPS DOWN THE PRICE

"Or equal" tends to keep down the price. The phrase should read "or equal as approved by the architect."

Henry C. Pelton,
Architect, New York.

THE OWNER GETS HIS MONEY'S WORTH

I am not in favor of "or equal" because with this clause in the specification one very seldom gets an equal if the contractor can save any money on a substitute. We take alternate figures on everything that goes with a building. If the owner makes a change from the base specification he knows what the extra or credit will be—no arguments and the owner always gets his money's worth.

Franz C. Warner,
Architect, Cleveland, Ohio.

How the Building Industry Can Work as a Unit

The Purposes of the Producers' Research Council —How It Helps the Architects

By O. C. Harn

Chairman of the Producers' Research Council

IN the Producers' Research Council, affiliated with the American Institute of Architects, we have a development which I believe is destined to become just as important as the more familiar co-operative movements. The idea behind the Producers' Research Council is even broader than the trade associations, and recognizes the fact that responsibility to the public often crosses the lines of an industry and unites very closely the interests of those who might at first glance be considered as working in entirely different fields.

It is just as wise, it seems to me, for the architect who plans a building and the manufacturer who supplies the material for that building to understand each other as for two manufacturers in the same line of manufacture to understand each other and co-operate. The architect and manufacturer are both working for the same client. If there is lost motion between them, their common client suffers the loss.

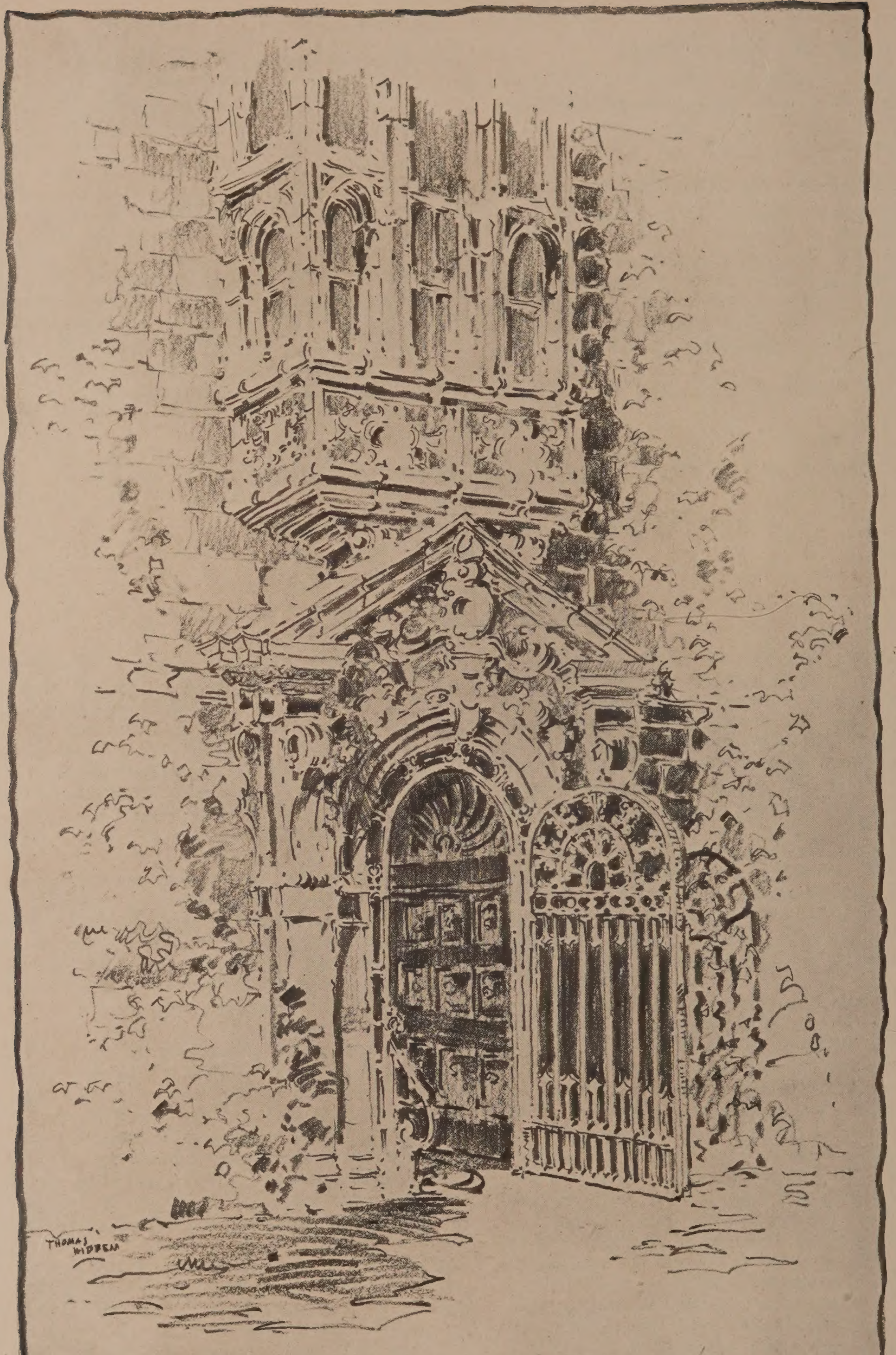
If we assume that this fundamental conception is correct, efforts to bring the architect and the manufacturer closer together are even more justified than efforts to bring only the manufacturers together, because there is more chance for misunderstanding between workers in different fields than between workers in the same fields. Manufacturers in the same line speak a common language. Their daily problems are the same. Architects have their own peculiar problems, their own language, and their own points of view.

When two groups as widely different in their functions as are architects and manufacturers attempt to get together for mutual benefit and for the benefit of their common client, the public, each must endeavor to learn the language of the other and the other's point of view. More important still is the necessity that each shall learn to lend his aid to the other in the best possible way. For each has his part to play in serving the common client. Neither can do the work of the other, yet neither can do his own work without the other.

We manufacturers know of many examples of lost motion (which means money loss) by reason of exports to other countries being rendered useless, or at least less useful than they might be, because the styles or sizes or packages sent are not in accordance with the desires of the natives. Exporters cannot see why a Chinaman should refuse an article which is blue and insist on red. But the Chinaman knows. Manufacturers of building-materials who go ahead making things for incorporation in a building without first knowing how the architect is going to incorporate the material in his design make the same kind of mistake. The manufacturer also makes a mistake when he contributes what he thinks is the best thing to meet a purpose without telling the architect how to use it. And this information should be given in the way and in the language in which the architect wants it told.

It is to find out all about these things, to learn how best these two great divisions of the building industry can work together, that the Producers' Research Council has been formed. It is because the American Institute of Architects has recognized the great need for this closer co-operation that the Council has been affiliated with the Institute.

The essential ideas of research are, on the one hand, to understand by careful and accurate study and observation just what takes place when certain things are done; and on the other, what are the inherent properties and qualities of the materials used. An architect with a mind trained to study and observation may learn the first; the manufacturer the second. The latter may be the better able to tell what modifications are possible; the former may, with this knowledge, suggest improvements in practice. Each, of course, tries to learn what he can of the other's business; but neither is likely to learn as much as the other knows. When they unite their knowledge, each feels a stimulus, each enjoys a benefit, and often each is diverted from trying what he might before have thought practicable but which is, in fact, not promising of advantage.



From a pencil drawing by Thomas Hibben.